HYDROLOGY STUDY OF SALT SLOUGH, MERCED COUNTY

California Regional Water Quality Control Board Central Valley Region 3443 Routier Road Sacramento, California 95827-3098

February 1989

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD CENTRAL VALLEY REGION

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INTRODUCTION

The State Water Resources Control Board (SWRCB) hearings on the problems at Kesterson Reservoir identified the need to control the discharges of agricultural subsurface drainage in the San Joaquin River Basin. SWRCB Order No. WQ 85-1, in part, requires that the Central Valley Regional Water Quality Control Board (Regional Board) adopt appropriate basin plan amendments and implement a program to regulate agricultural drainage flows in the San Joaquin River Basin. As part of the regulatory program, the Regional Board intensified monitoring of agricultural discharges, required agricultural dischargers to monitor the quality of their discharges and initiated drainage hydrology investigations for the agricultural areas on the west side of the San Joaquin River.

The majority of the subsurface agricultural drainage pollutant load discharged to the San Joaquin River enters via Salt Slough and Mud Slough (North) in Merced County. However, there was little hydrologic information available on these sloughs prior to this investigation. This study was initiated to gain information about the hydrology of Salt Slough especially as it relates to subsurface agricultural drainage. The objectives of the study were to physically characterize Salt Slough and identify the surface hydrologic influences on it. The goal of the study was to develop information that could be used in identifying the beneficial uses and appropriate water quality objectives for Salt Slough and in developing the portion of the regulatory program that deals with the discharges to and from Salt Slough.

BACKGROUND

Salt Slough is located in Merced County in the San Joaquin Valley, and is a tributary of the San Joaquin River (Figure 1). It originates at Sand Dam near the confluence of Salt Slough Ditch and West Delta Drain (SE1/4, SE1/4, NE1/4, Sec.21, T.9S, R.11E, MDB&M). From here, Salt Slough flows northwestward and discharges to the San Joaquin River approximately 3.5 miles downstream of Fremont Ford State Park (NE1/4, NE1/4, SW1/4, Sec.29, T.7S, R.10E, MDB&M). Salt Slough is a typical valley floor slough. It has a very small slope; it meanders and is generally shallow and slow moving except during periods of exceptionally high flow. Its principal tributaries are Salt Slough Ditch, Mud Slough (South) and West Delta Drain.

Salt Slough drains the area west of the San Joaquin River. The majority of its flow originates in the San Luis Canal Company water district. However, major inputs are received from the Central California Irrigation District, Poso Canal Company and the Grassland Water District. During the winter and early spring its flows are a mixture of subsurface agricultural drainage, precipitation runoff and discharges from local duck clubs and wildlife refuges. During the summer and fall its flows are made up of agricultural tailwater, irrigation district spill water and subsurface agricultural drainage.

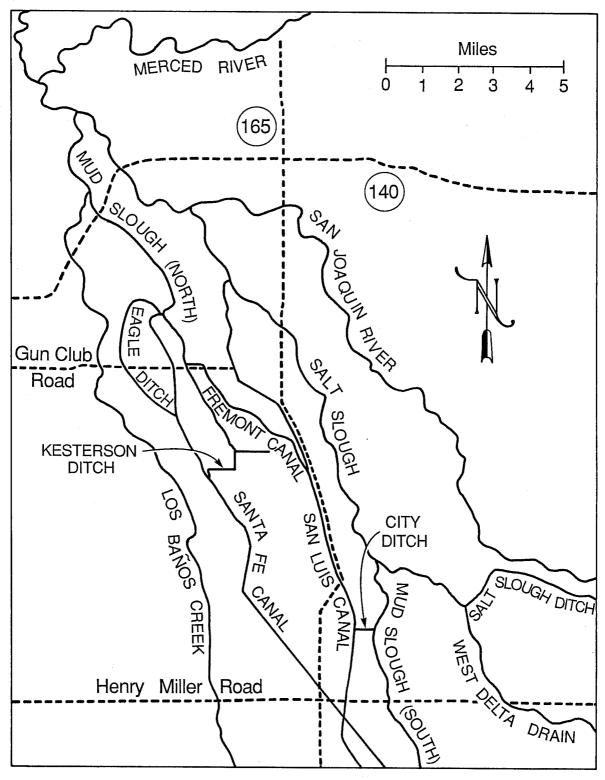


Fig. 1. Location Map

METHODS AND FINDINGS

The study was initiated in early 1987, the field work completed by the end of the summer of 1987, and the study essentially completed by the end of 1987. The following describes the methods used to gather information, describes the appendices which contain the detailed information gathered, and presents a summary of findings.

Methods

Several methods were used to gather information about Salt Slough. Initially, it was surveyed by air. Additional information was obtained from U. S. Geological Survey Topographical Quadrangles and Regional Board files. Lastly, an on-the-ground inspection of the entire length of Salt Slough was done.

The on-the-ground inspection of Salt Slough consisted of traveling its entire length, noting the location and type of all discharges and diversions, and identifying the source of all discharges. Detailed photographs of each site are available in Regional Board files. The detailed information compiled by this study is presented in Appendices A through C. The appendices contain:

Appendix A - Index to Salt Slough discharge and diversion sites

Appendix B - Flow diagrams for Salt Slough

Appendix C - Discharge and diversion descriptions

Appendix A lists the discharge and diversion sites in order from south to north, identifies the sites by a site number, locates the site by distance along the slough, references the photographs of the site, and provides a brief site description. Small field drains, draining the same general area, were grouped together under a common site number and identified singly by a unique letter. The flow diagrams locate the discharges and diversions by distance along the slough (in "slough miles") and the direction from which they enter or leave the slough. The Discharge and Diversion Descriptions provide additional detailed information on location including a description of how to access the site, information on the type or source of discharge, any monitoring that is regularly done of the discharge and the ownership of the discharge or diversion.

Findings

Salt Slough currently has 71 discharges, 9 diversions and 12 natural channels. Figures 2 and 3 locate each of the discharge and diversion sites by their unique site number. The majority of discharges are small field drains draining small areas of field crops and pasture land. Most of the remaining discharges drain duck ponds from the

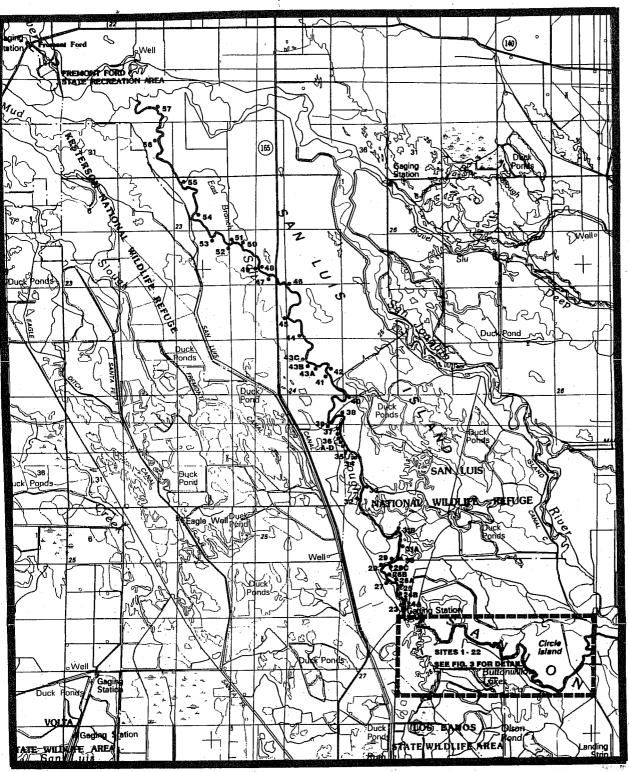


Figure 2. Discharge and Diversion Site Map.

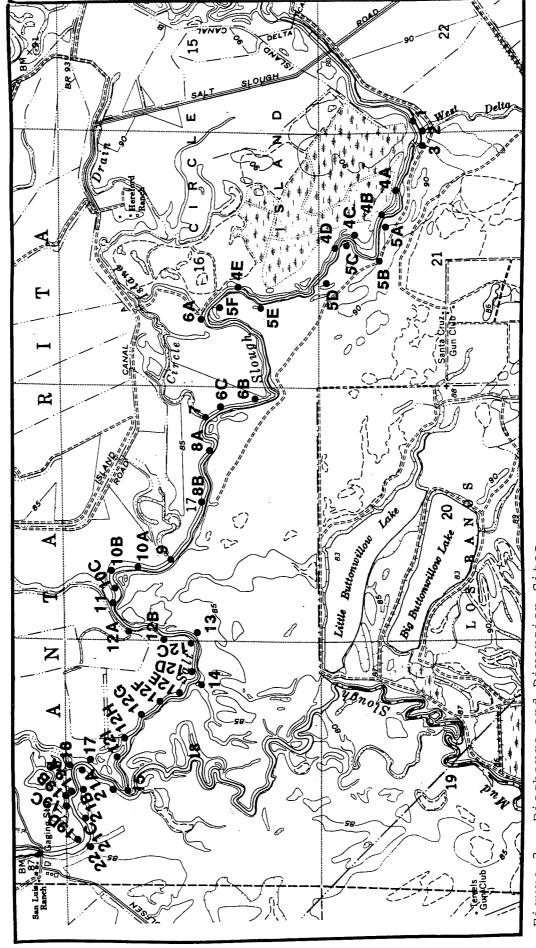


Figure 3. Discharge and Diversion Sites Upstream of Wolfsen Road.

San Luis National Wildlife Refuge (NWR) or private duck clubs. Of the nine diversions, six are used for irrigation of pasture and stockwatering and one is used for irrigation of field crops. The remaining two diversions are used by the San Luis NWR for flooding duck ponds. For the majority of the natural channels water will probably flow out of the slough during periods of high flow in Salt Slough and into the slough during periods of high groundwater.

The majority of discharges (78%) enter Salt Slough prior to the south entrance of the San Luis NWR, i.e. in the first 9.9 miles of the 20.7 miles. Most of these discharges carry tailwater drainage from areas of field crops. North of this point, all the discharges to Salt Slough are either from pasture land or duck ponds.

The major discharges to Salt Slough all enter south of the refuge and within the first four miles. These are the tributaries; Salt Slough Ditch, West Delta Drain and Mud Slough (South). Both Salt Slough Ditch and Mud Slough (South) may carry subsurface agricultural drainage as well as irrigation district spill water. The West Delta Drain does not carry any subsurface agricultural drainage but may carry some irrigation district spill water or groundwater seepage.

APPENDIX A

INDEX TO SALT SLOUGH DISCHARGE AND DIVERSION SITES

Discharges

<u>Site</u>	Slough Mile	Photographs*	<u>Description</u>
SSL001	0.00E	S1	Salt Slough Ditch discharge to Salt Slough
SSL002	0.018	J9	West Delta Drain discharge to Salt Slough
SSL004A-E	0.16N-1.16E	J16,J21-J24	field drains
SSL005A-F	0.46S-1.25S	J11-J15,J17	field drains
SSL006A-C	1.28N-1.72W	J18,K1,K2	field drains
SSL007	1.87N	K3	Circle Island Drain discharge to Salt Slough
SSL008A-B	1.99N-2.13N	K4,K5	field drains
SSL009	2.49N	K6	large field drain
SSL010	2.62E-2.78N	K7-K9	field drains
SSL012A-I	2.95N-3.98N	L1-L4,L6,L8, L9,K24,K25	field drains
SSL013	3.34S	L7	large field drain
SSL014	3.53W	L5	large field drain
SSL015	4.01W	K23	Mud Slough (South) discharge to Salt Slough
SSL016	4.03W	K22	large field drain
SSL017	4.11E	K21	large field drain
SSL018	4.19N	K20	large field drain
SSL019A-D	4.21N-4.43N	K13,K15,K17, K19	field drains
SSL020	4.22S	K18	large field drain

<u>Site</u>	Slough Mile	Photographs*	<u>Description</u>
SSL021A-C	4.29S-4.53S	K12,K14,K16	field drains
SSL023	4.78W	L10	field drain
SSL024A-B	4.87E-5.06E	L11,L12	field drains
SSL025	5.26E	L13	Hereford Drain discharge to Salt Slough
SSL026A-C	5.27N-6.36E	L14,L16,M5	field drains
SSL029	6.26N	N2	field irrigation spill
SSL031A-B	6.66E-6.91N	L18,L19	drains from San Luis National Wildlife Refuge
SSL032	8.23W	N4	pond drain
SSL033	8.31N	L20	San Luis Drain #1 discharge to Salt Slough
SSL034	9.01W	L21,N6	field drain
SSL035	9.11W	N7	pond drain
SSL036A-D	9.21W-9.56W	L22-L24,N8,N9	field drains
SSL037	9.61W	N10,N11	large field drain
SSL038	9.91N	M1	drain from San Luis National Wildlife Refuge
SSL041	11.76W	M13	natural channel
SSL042	12.02E	M12	Deadman's Slough discharge to Salt Slough
SSL043A-C	12.45W-12.67W	M9-M11	natural channels
SSL045	13.97W	M7	natural channel
SSL046	14.05E	M6	pond drain
SSL047	14.47S	M15	natural channel

<u>Site</u>	Slough Mile	Photographs*	<u>Description</u>
SSL048	14.62N	M16	natural channel
SSL049	14.65S	M17	natural channel
SSL052	16.04S	M19	large field drain
SSL053	16.50S	M20	pond drain
SSL054	17.45E	M21,N14	Middle Branch of Salt Slough reentering Salt Slough
SSL055	18.25E	N15	East Branch of Salt Slough reentering Salt Slough
SSL056	19.68W	N17	natural channel
SSL057	20.27E	N18	natural channel

^{*} Photographs available in Regional Board files

Diversions

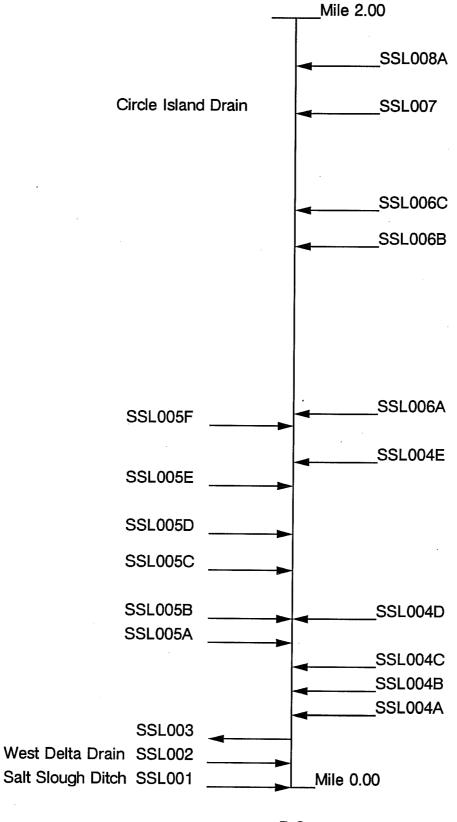
<u>Site</u>	Slough Mile	Photographs*	<u>Description</u>
SSL003	0.028	J10	Lift pump
SSL011	2.82N	K10	Lift pump
SSL022	4.56W	K11	Lift pump
SSL027	5.41S	L15	Lift pump
SSL028	5.86W	M4,N1	Lift pump
SSL030	6.36E	L17,N3	San Luis National Wildlife Refuge lift pumps
SSL039	10.21W	M2	Lift pump
SSL040	11.01E	M14,N12	San Luis National Wildlife Refuge lift pumps
SSL044	13.41W	M8	Portable lift pump
SSL050	15.44N	M18	East Branch of Salt Slough leaving Salt Slough
SSL051	15.91N		Middle Branch of Salt Slough leaving Salt Slough

^{*} Photographs available in Regional Board files

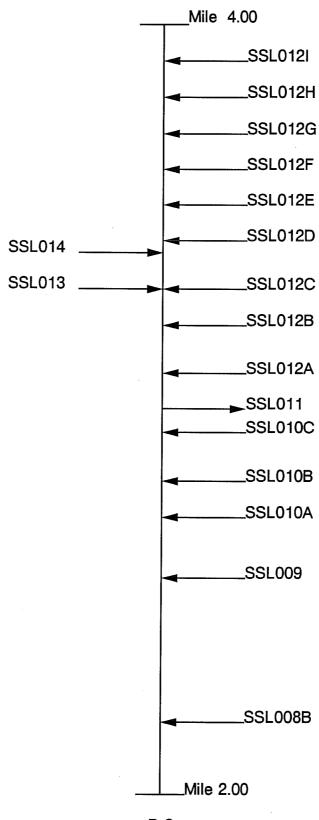
APPENDIX B

FLOW DIAGRAMS

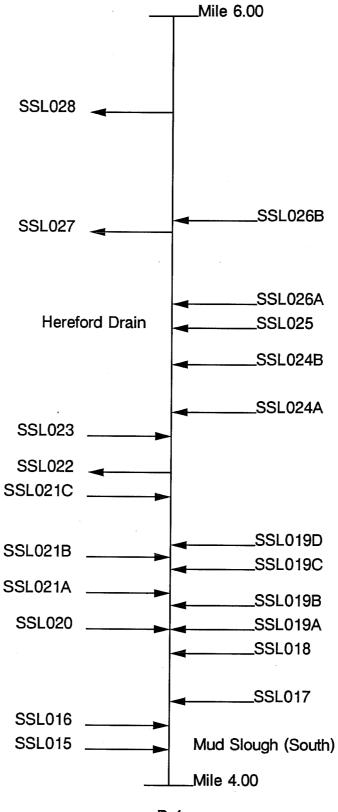
Mile 0.00 - Mile 2.00



Mile 2.00 - Mile 4.00

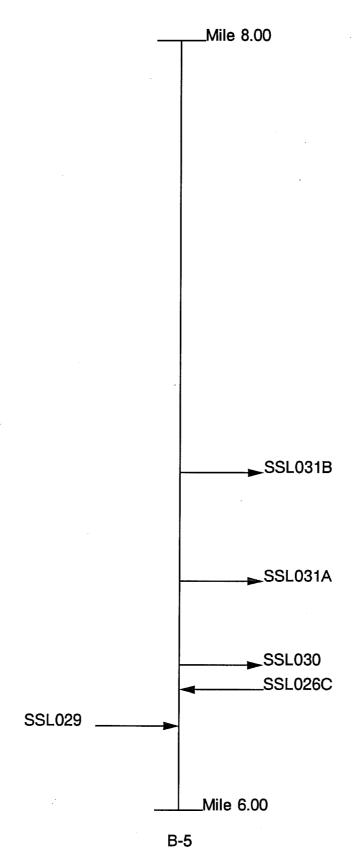


Mile 4.00 - Mile 6.00

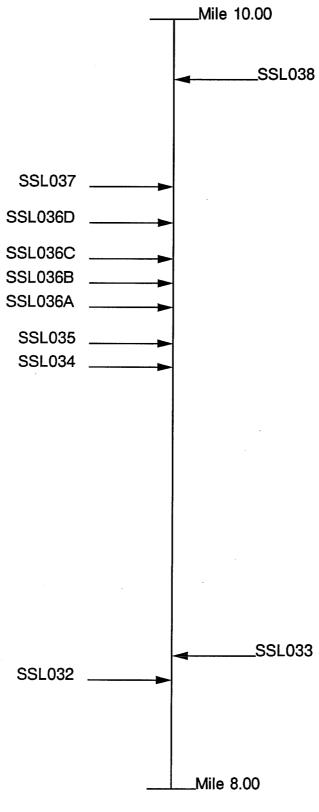


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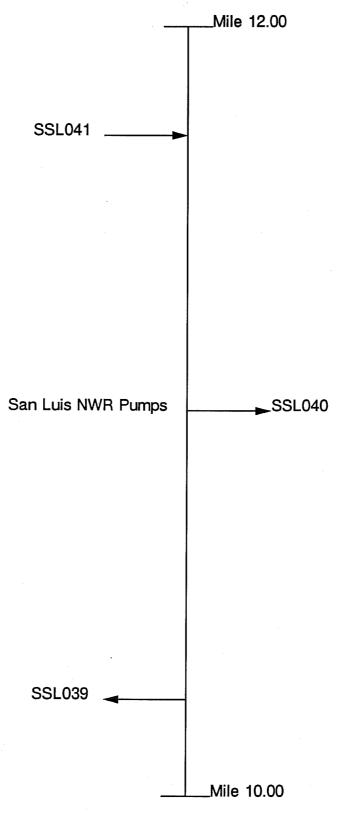
Mile 6.00 - Mile 8.00



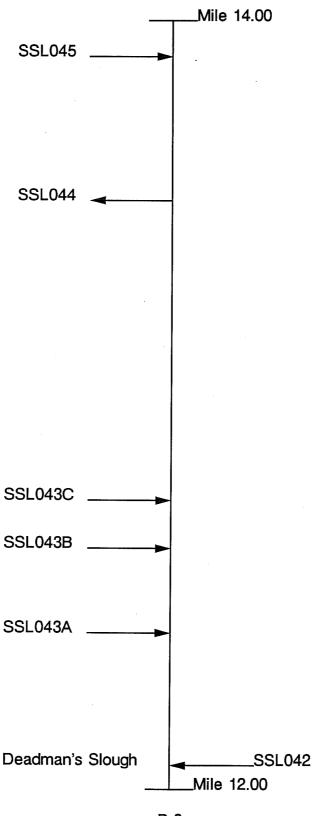
Mile 8.00 - Mile 10.00



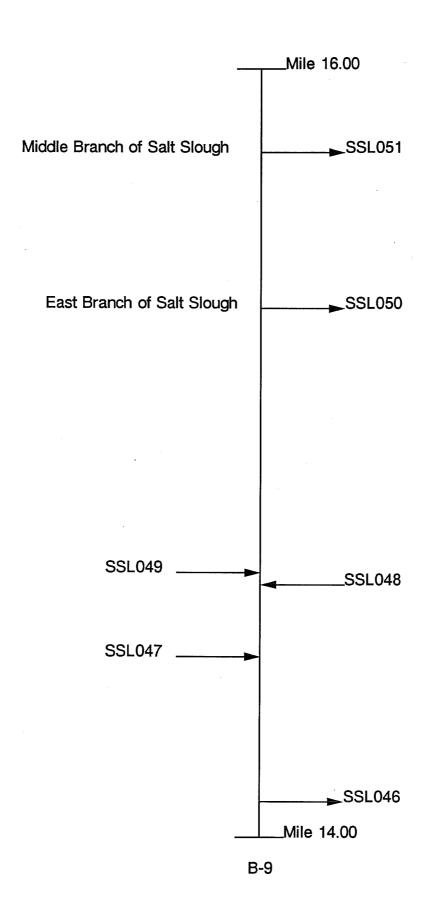
Mile 10.00 - Mile 12.00



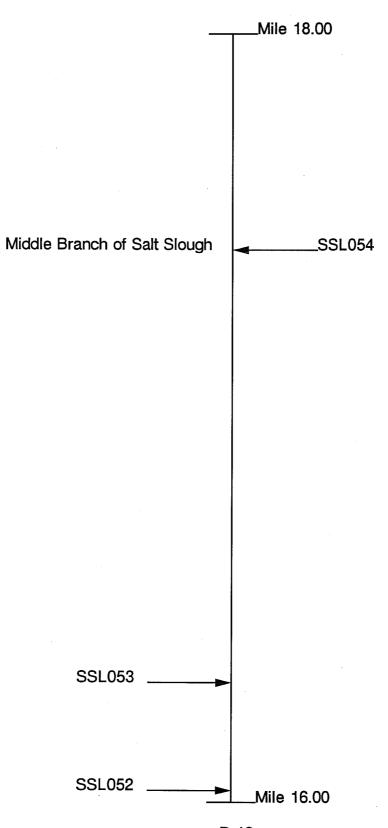
Mile 12.00 - Mile 14.00



MIle 14.00 - Mile 16.00

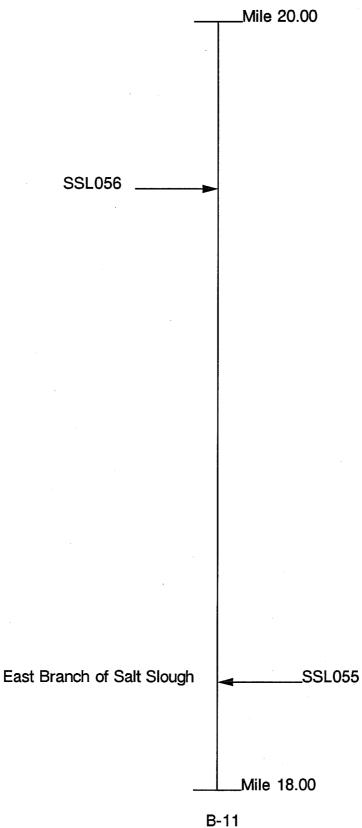


Mile 16.00 - Mile 18.00

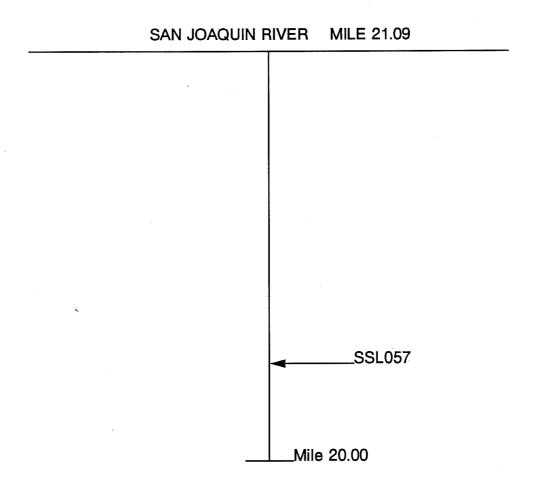


B-10

Mile 18.00 - Mile 20.00



Mile 20.00 - Mile 21.09



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APPENDIX C

DISCHARGE AND DIVERSION DESCRIPTIONS

SALT SLOUGH DISCHARGE SITE INFORMATION SHEET

SITE ID #SSL001

Site Name: Salt Slough Ditch Discharge

Slough Mileage: 0.00E

to Salt Slough

Site description, location, and access: From Los Banos take Mercy Springs Road north to Henry Miller Road and turn east. Proceed east for approximately 5.0 miles to Hereford Road and turn north. Head north for approximately 3.0 miles to where Salt Slough Ditch undercrosses the road. At this point, follow the Slough south along the east bank for approximately 0.6 miles to where the road crosses the Slough. Downstream of the crossing is Salt Slough. Upstream of this crossing is Salt Slough Ditch. This is the discharge site.

Township/Range/Section: SW 1/4, SW 1/4, NW 1/4, Sec. 22, T.9S, R.11E, MDB&M

Latitude/Longitude: Lat: 37° 08' 09" N

Long: 120° 45' 36" W

County: Merced

USGS Quad Map: San Luis Ranch

WATER SOURCE

Type and source of water being discharged (description): Salt Slough Ditch is the major drainage source for the San Luis Canal Company south and east of Salt Slough.

Comments on factors affecting water quality and quantity at the site: The majority of flow is tailwater from a large area of the San Luis Canal Company. Only a small portion of the flow at this point is subsurface tile drainage.

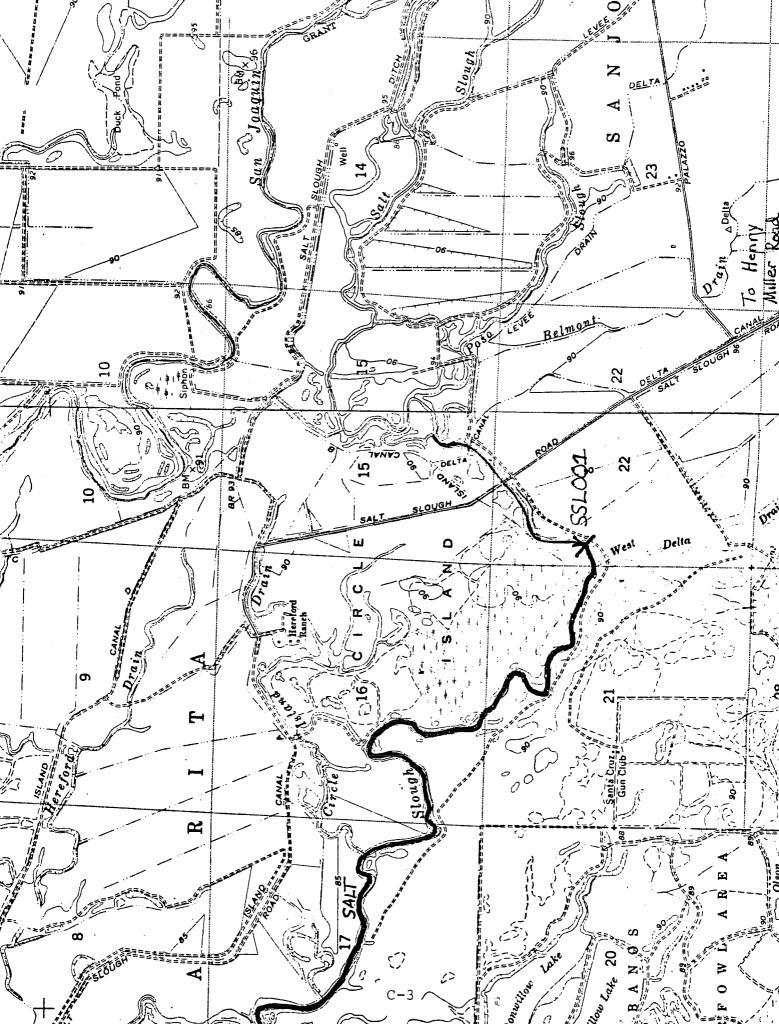
Discharge Ownership and Operation: San Luis Canal Company

11704 West Henry Miller Road Dos Palos, CA 93620-9748

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with

respect to other canals, roads, districts boundaries or other

reference points.



SALT SLOUGH DISCHARGE SITE INFORMATION SHEET

SITE ID #SSL002

Site Name: West Delta Drain Slough Mileage: 0.01S

Site description, location, and access: From Los Banos take Mercy Springs Road north to Henry Miller Road and turn east. Proceed east for approximately 5.0 miles to Hereford Road and turn north. Head north for approximately 3.0 miles to where Salt Slough Ditch undercrosses the road. At this point, follow the Slough south along the east bank for approximately 0.6 miles to where a large channel enters the drain. This is the West Delta Drain.

Township/Range/Section: SW 1/4, SW 1/4, NW 1/4, Sec. 22, T.9S, R.11E, MDB&M

Latitude/Longitude: Lat: 37° 08' 09" N

Long: 120° 45' 37" W

County: Merced USGS Quad Map: San Luis Ranch

WATER SOURCE

Type and source of water being discharged (description): The West Delta Drain drains tailwater from a large area to the southeast in the San Luis Canal Company.

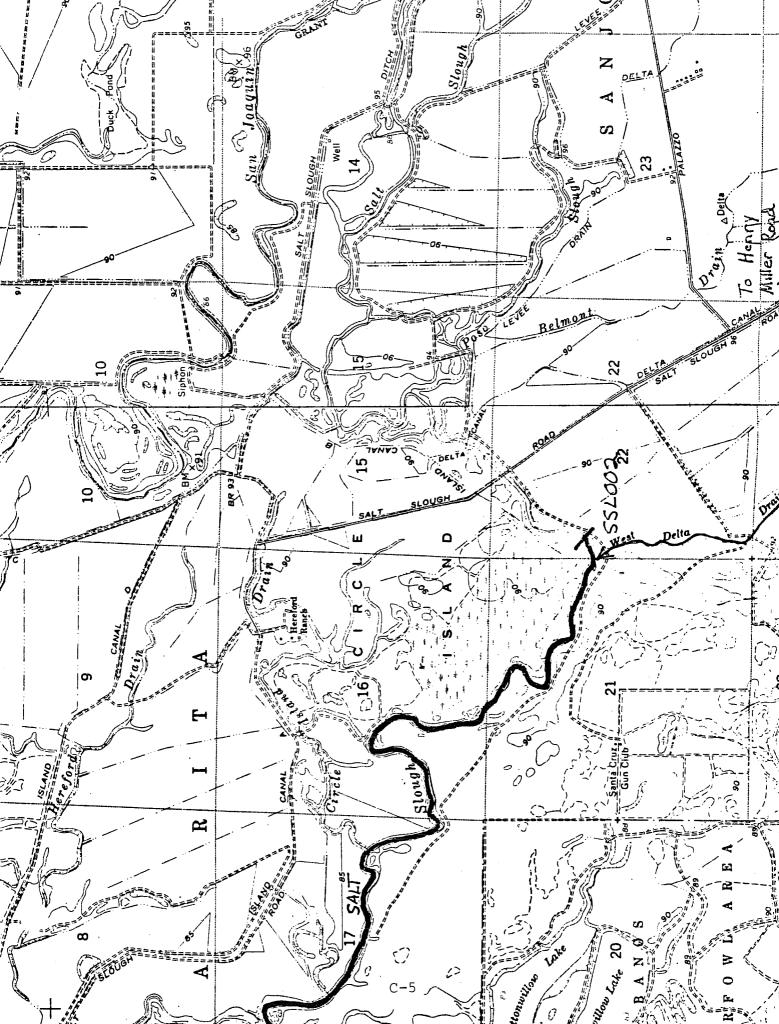
Discharge Ownership and Operation: San Luis Canal Company

11704 West Henry Miller Road Dos Palos, CA 93620-9748

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with

respect to other canals, roads, districts boundaries or other

reference points.



SALT SLOUGH DIVERSION SITE INFORMATION SHEET

SITE ID #SSL003

Site Name:

Slough Mileage: 0.02S

Site description, location, and access: From Los Banos take Mercy Springs Road north to Henry Miller Road and turn east. Proceed east for approximately 5.0 miles to Hereford Road and turn north. Head north for approximately 3.0 miles to where Salt Slough Ditch undercrosses the road. At this point, follow the Slough south along the east bank for approximately 0.6 miles to where a pump with a black motor lifts water from the south side of the Slough to an irrigation ditch. This is the diversion site

Township/Range/Section: SE 1/4, SE 1/4, NE 1/4, Sec. 21, T.9S, R.11E, MDB&M

Latitude/Longitude: Lat: 37° 08' 12" N

Long: 120° 45' 50" W

County: Merced USGS Quad Map: San Luis Ranch

WATER SOURCE

Type of diversion and use of the water: Water diverted, at this point, is lifted from the Slough by pump and is used to irrigate an area just south of Salt Slough. Primary diversion occurs between 1 February and 30 November. The quantity of diversion is 8.6 cfs.

Water Right Permit Number: Statement of riparian right #009612

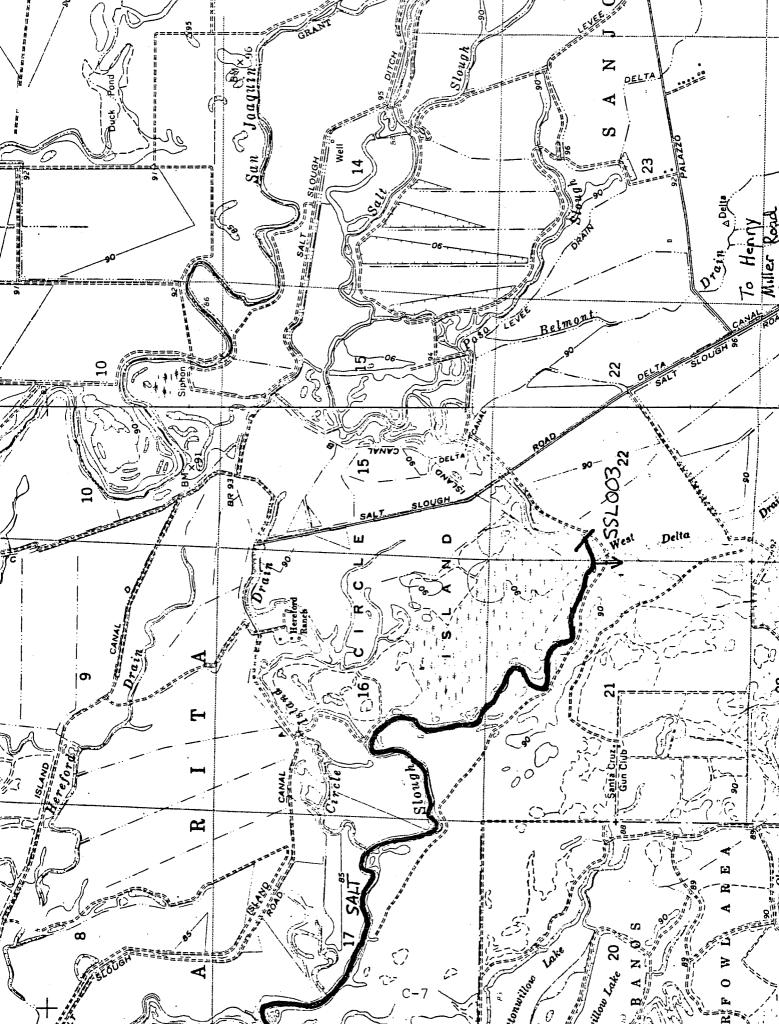
Diversion Ownership and Operation: Wolfsen Land and Cattle Company

Box 311

Los Banos, CA 93635

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with

respect to other canals, roads, districts boundaries or other



SITE ID #SSL004A-E

Site Name:

Slough Mileage: 0.16N-1.16E

Site description, location, and access: From Los Banos take Mercy Springs Road north to Henry Miller Road and turn east. Proceed east for approximately 5.0 miles to Hereford Road and turn north. Head north for approximately 3.0 miles to where Salt Slough Ditch undercrosses the road. At this point, follow the Slough south along the west bank for approximately 0.75 miles to where a corrugated pipe enters the Slough. This is site SSL004A.

Township/Range/Section: Secs. 16 and 21, T.9S, R.11E, MDB&M

County: Merced

USGS Quad Map: San Luis Ranch

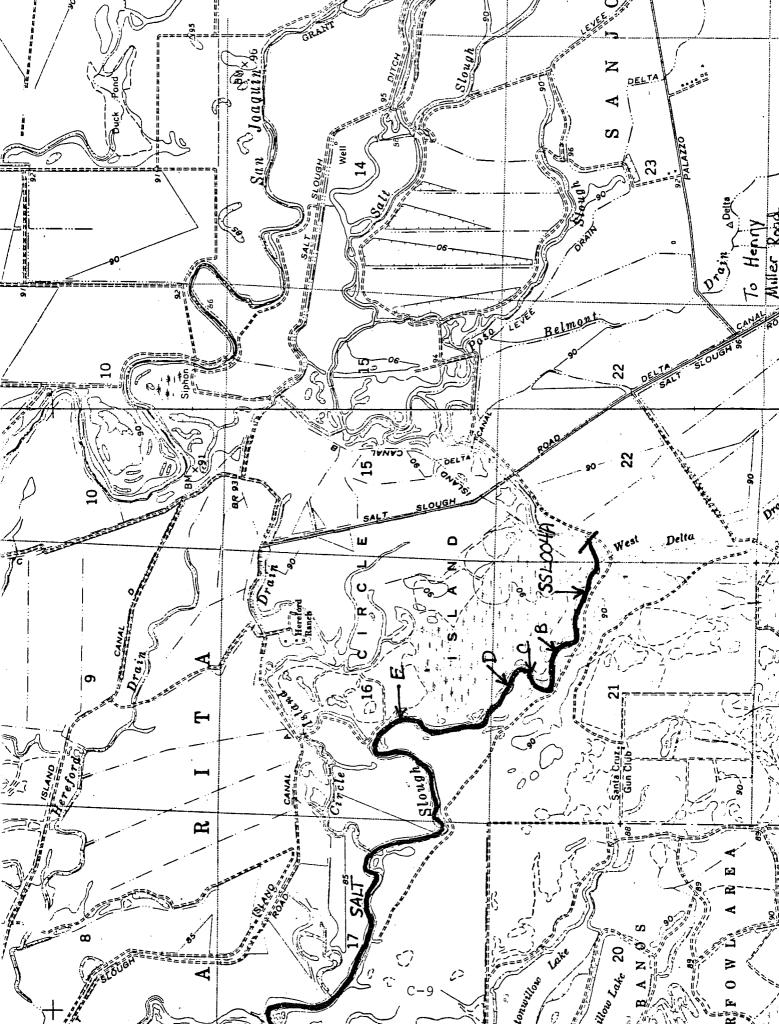
WATER SOURCE

Type and source of water being discharged (description): Each drain is a field drain draining surface water from an area just north of Salt Slough.

Site #	Slough <u>Mileage</u>	Site Description
SSL004A SSL004B SSL004C	0.16N 0.37N 0.43E	Corrugated pipe entering Slough. Pipe entering Slough, 0.2 miles west of SSL004A. Corrugated pipe undercrossing the levee road
SSL004D	0.51E	0.3 miles northwest of SSL004A. Corrugated pipe undercrossing the levee road 0.35 miles northwest of SSL004A.
SSL004E	1.16E	Corrugated pipe undercrossing the levee road 1.0 miles northwest of SSL004A.

Discharge Ownership and Operation: Wolfsen Land and Cattle Company

Box 311



SITE ID #SSL005A-F

Site Name:

Slough Mileage: 0.46S-1.25S

Site description, location, and access: From Los Banos take Mercy Springs Road north to Henry Miller Road and turn east. Proceed east for approximately 5.0 miles to Hereford Road and turn north. Head north for approximately 3.0 miles to where Salt Slough Ditch undercrosses the road. From this point, follow the Slough south along the east bank for approximately 1.05 miles to where a small corrugated pipe enters the Slough. This is site SSLOO5A.

Township/Range/Section: Secs. 16 and 21, T.9S, R.11E, MDB&M

County: Merced

USGS Quad Map: San Luis Ranch

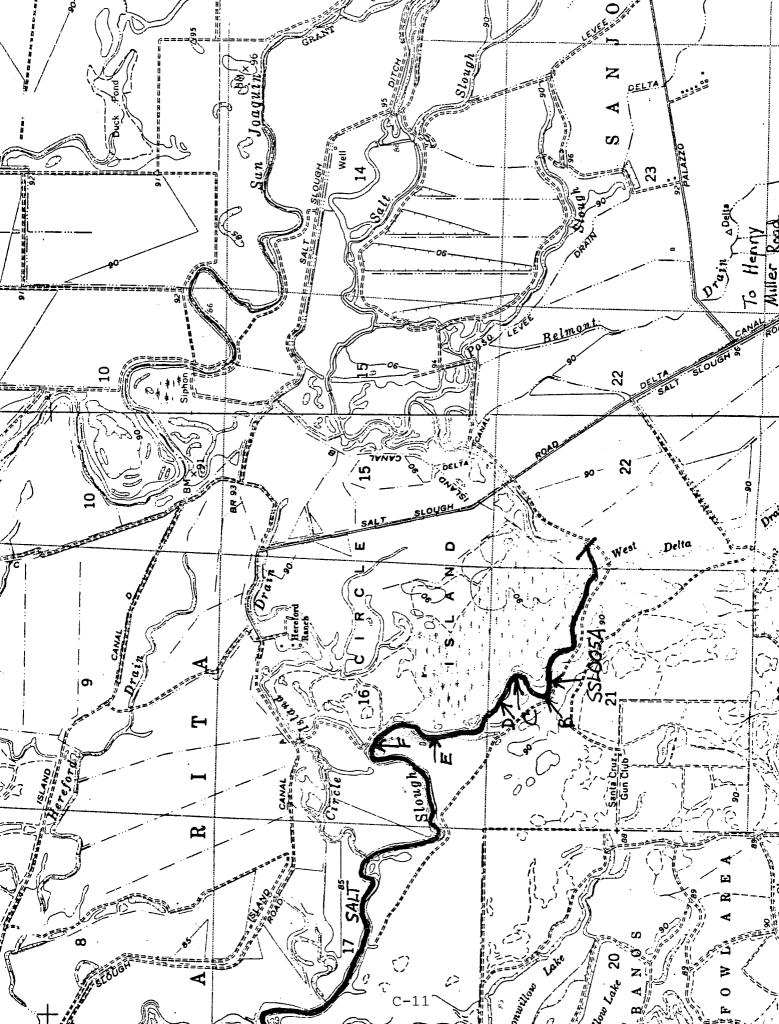
WATER SOURCE

Type and source of water being discharged (description): Each drain is a field drain draining surface water from an area just south of Salt Slough.

Site #	Slough <u>Mileage</u>	Site Description
SSL005A SSL005B	0.46S 0.51W	Small corrugated pipe entering Slough. Corrugated pipe entering Slough 0.05 miles west of SSL005A.
SSL005C	0.66W	Small pipe undercrossing levee road 0.2 miles northwest of SSL005A.
SSL005D	0.745	Small corrugated pipe entering the Slough 0.3 miles northwest of SSLOO5A.
SSL005E	0.95W	Small pipe undercrossing the levee road 0.5 miles northwest of SSLOO5A.
SSL005F	1.25\$	Small corrugated pipe undercrossing the levee road 0.8 miles northwest of SSL005A.

Discharge Ownership and Operation: Wolfsen Land and Cattle Company

Box 311



SITE ID #SSLOO6A-C

Site Name:

Slough Mileage: 1.28N-1.72W

Site description, location, and access: From Los Banos take Mercy Springs Road north to Henry Miller Road and turn east. Proceed east for approximately 5.0 miles to Hereford Road and turn north. Head north for approximately 3.0 miles to where Salt Slough Ditch undercrosses the road. At this point, follow the Slough south along the west bank for approximately 1.8 miles to where a pipe undercrosses the road. This is site SSL006A.

Township/Range/Section: Secs. 16 and 17, T.9S, R.11E, MDB&M

County: Merced USGS Quad Map: San Luis Ranch

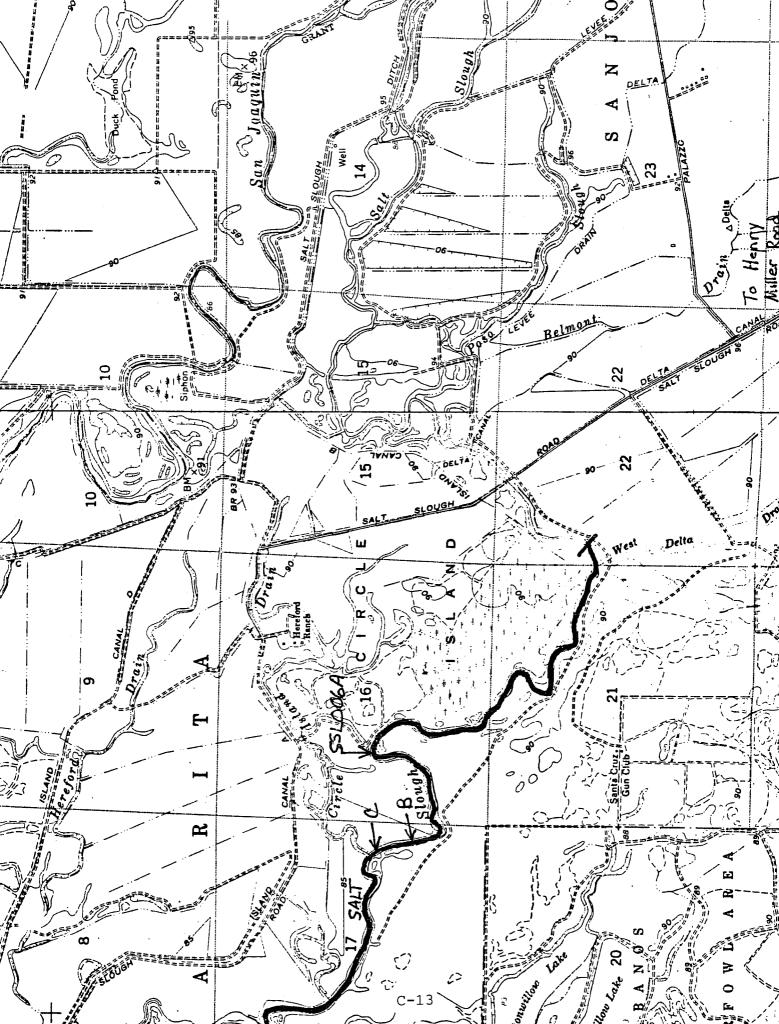
WATER SOURCE

Type and source of water being discharged (description): Each drain is a field drain draining tailwater from an area just north of Salt Slough and just south of Circle Island Drain.

Site #	Slough <u>Mileage</u>	<u>Site Description</u>
SSL006A SSL006B	1.28N 1.60N	Pipe undercrossing the levee road. Concrete pipe undercrossing the levee road 0.3 miles west of SSLOO6A.
SSL006C	1.72W	Pipe undercrossing the levee road 0.45 miles west of SSL006A.

Discharge Ownership and Operation: Wolfsen Land and Cattle Company

Box 311



SITE ID #SSL007

Site Name: Circle Island Drain Slough Mileage: 1.87N

Site description, location, and access: From Los Banos take Mercy Springs Road north to Henry Miller Road and turn east. Proceed east for approximately 5.0 miles to Hereford Road and turn north. Head north for approximately 3.0 miles to where Salt Slough Ditch undercrosses the road. At this point, follow the Slough south along the west bank for approximately 2.4 miles to where Circle Island Drain undercrosses the levee road. This is the discharge site.

Township/Range/Section: NE 1/4, NE 1/4, SE 1/4, Sec. 17, T.9S, R.11E, MDB&M

Latitude/Longitude: Lat: 37° 08' 56" N

Long: 120° 46' 51" W

County: Merced USGS Quad Map: San Luis Ranch

WATER SOURCE

Type and source of water being discharged (description): The Circle Island Drain drains tailwater from a small area in the extreme northern portion of the San Luis Canal Company.

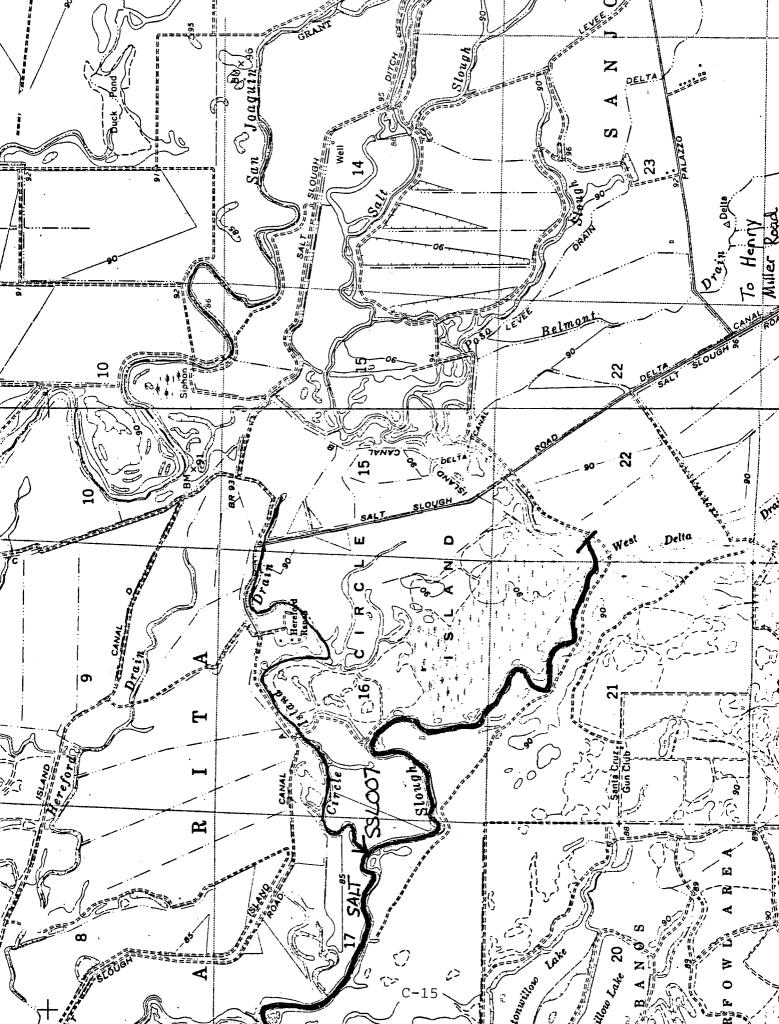
Discharge Ownership and Operation: Wolfsen Land and Cattle Company

P.O. Box 311

Los Banos, CA 93635

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with

respect to other canals, roads, districts boundaries or other



SITE ID #SSLO08A-B

Site Name: Slough Mileage: 1.99N-2.13N

Site description, location, and access: From Los Banos take Mercy Springs Road north to Henry Miller Road and turn east. Proceed east for approximately 5.0 miles to Hereford Road and turn north. Head north for approximately 3.0 miles to where Salt Slough Ditch undercrosses the road. At this point, follow the Slough south along the west bank for approximately 2.5 miles to where a small corrugated pipe undercrosses the road. This is site SSL008A.

Township/Range/Section: NE 1/4, SE 1/4, Sec. 17, T.9S, R.11E, MDB&M

County: Merced USGS Quad Map: San Luis Ranch

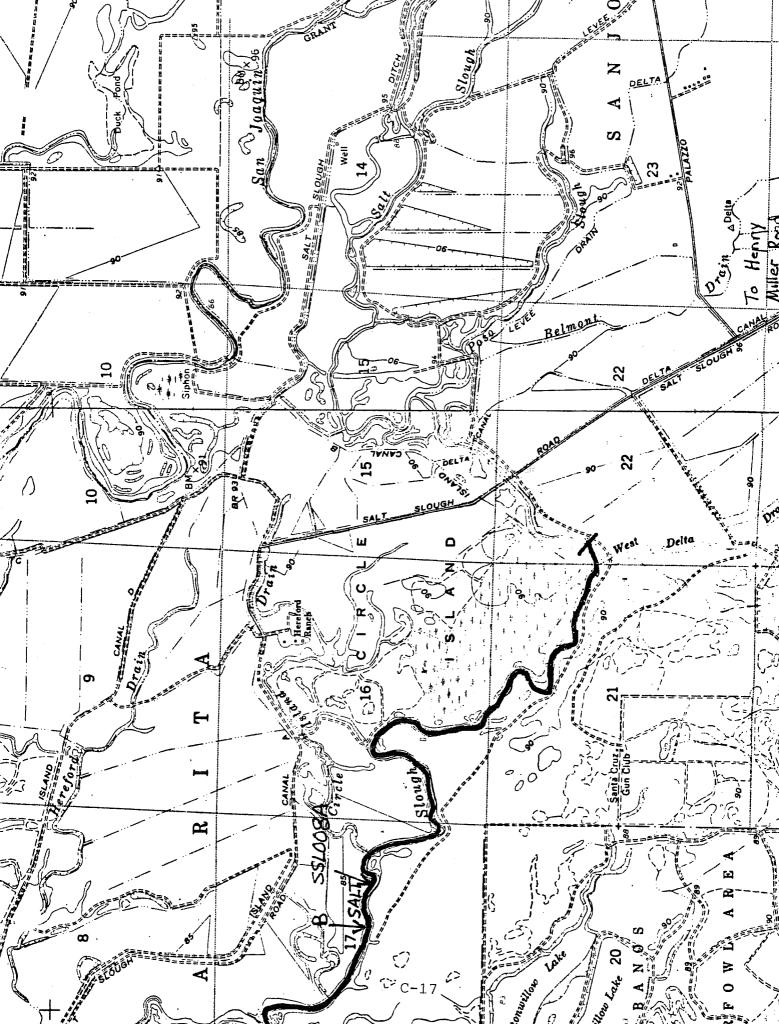
WATER SOURCE

Type and source of water being discharged (description): Both drains are field drains draining tailwater from an area just north of Salt Slough.

Site #	Slough <u>Mileage</u>	Site Description
SSL008A	1.99N	Small corrugated pipe undercrossing the levee road.
SSL008B	2.13N	Small corrugated pipe undercrossing the levee road 0.14 miles west of SSL008A.

Discharge Ownership and Operation: Wolfsen Land and Cattle Company

Box 311



SITE ID #SSL009

Site Name:

Slough Mileage: 2.49N

Site description, location, and access: From Los Banos take Mercy Springs Road north to Henry Miller Road and turn east. Proceed east for approximately 5.0 miles to Hereford Road and turn north. Head north for approximately 3.0 miles to where Slat Slough Ditch undercrosses the road. At this point, follow the Slough south along the west bank for approximately 3.0 miles to where a large drain undercrosses the levee road. This is the discharge site.

Township/Range/Section: SW 1/4, SE 1/4, NW 1/4, Sec. 17, T.9S, R.11E, MDB&M

Latitude/Longitude: Lat: 37° 09' 04" N

Long: 120° 47' 27" W

County: Merced

USGS Quad Map: San Luis Ranch

WATER SOURCE

Type and source of water being discharged (description): This drain drains tailwater from a small area in the extreme northern portion of the San Luis Canal Company.

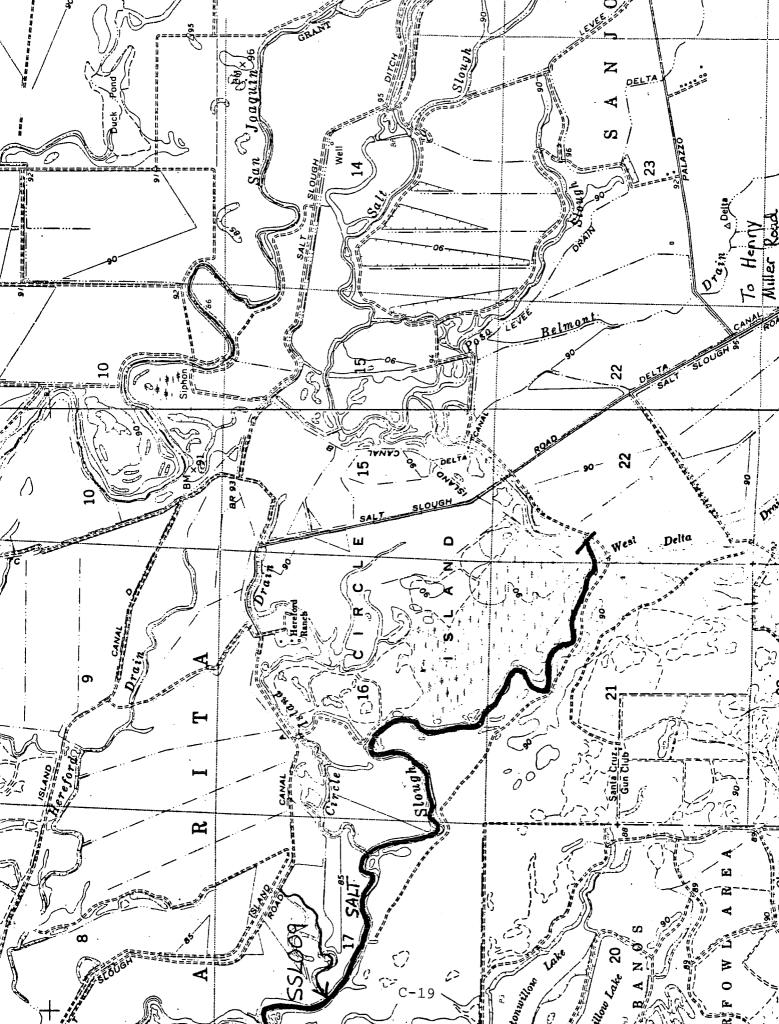
Discharge Ownership and Operation: Wolfsen Land and Cattle Company

P.O. Box 311

Los Banos, CA 93635

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with

respect to other canals, roads, districts boundaries or other



SITE ID #SSL010A-C

Site Name:

Slough Mileage: 2.62E-2.78N

Site description, location, and access: From Los Banos take Mercy Springs Road north to Henry Miller Road and turn east. Proceed east for approximately 5.0 miles to Hereford Road and turn north. Head north for approximately 3.0 miles to where Salt Slough Ditch undercrosses the road. At this point, follow the Slough south along the west bank for approximately 3.1 miles to where a small corrugated pipe undercrosses the levee road. This is site SSL010A.

Township/Range/Section: NW 1/4, Sec. 17, T.9S, R.11E, MDB&M

County: Merced

USGS Quad Map: San Luis Ranch

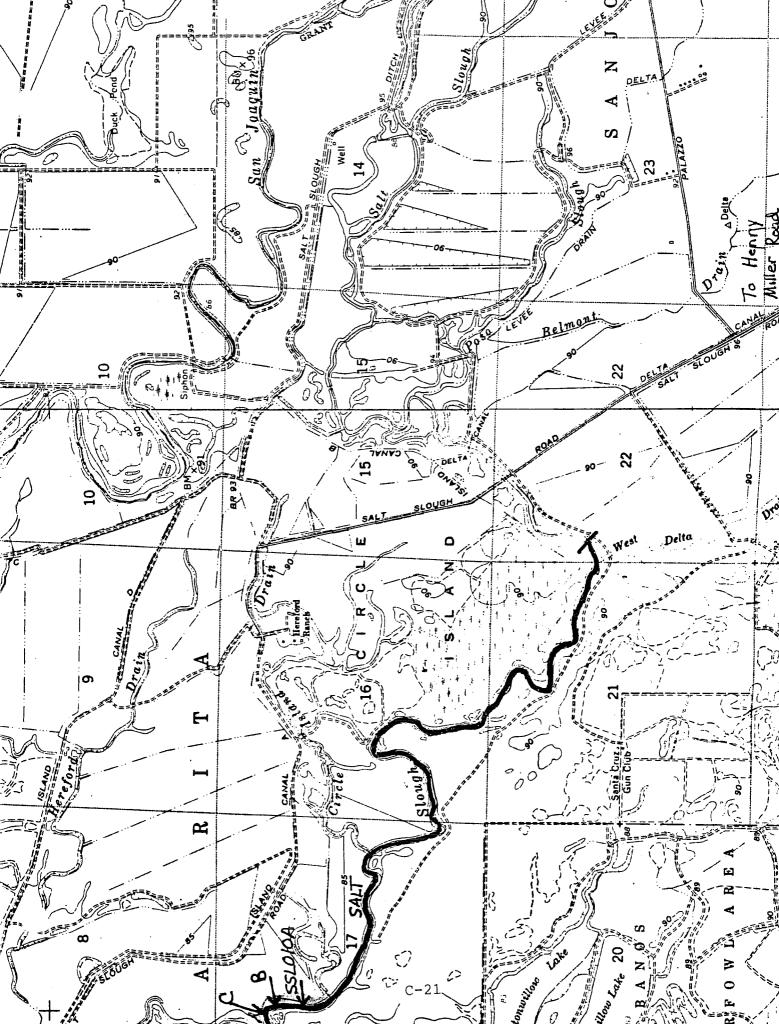
WATER SOURCE

Type and source of water being discharged (description): Each of these drains are field drains draining fields just north of Salt Slough in the extreme northern section of the San Luis Canal Company.

Site #	Slough <u>Mileage</u>	Site Description
SSL010A	2.62E	Small corrugated pipe undercrossing the levee road.
SSL010B	2.70E	Pipe undercrossing the levee road 0.08 miles north of SSL008A.
SSL010C	2.78N	Small corrugated pipe undercrossing the levee road 0.16 miles northwest of SSL010A.

Discharge Ownership and Operation: John H. Lawrence

c/o Donner Laboratory 220 Glorietta Boulevard Orinda, CA 94563



SALT SLOUGH DIVERSION SITE INFORMATION SHEET

SITE ID #SSL011

Site Name: Slough Mileage: 2.82N

Site description, location, and access: From Los Banos take Mercy Springs Road north to Wolfsen Road and proceed to the San Luis Ranch. At this point, the road crosses over Salt Slough. From here, continue along the road to the first dirt road to the east. Proceed east on this road. The road begins to parallel a large drain. Continue along this drain until it meets up with the Slough. At this point there is a wooden fence. Climb over the fence and proceed west to the Slough. At this point, a pump with a yellow motor lifts water from the Slough to a concrete lined irrigation ditch. This is the diversion site.

Township/Range/Section: NE 1/4, NE 1/4, NE 1/4, Sec. 17, T.9S, R.11E

Latitude/Longitude: Lat: 37° 09' 18" N Long: 120° 47' 51" W

County: Merced USGS Quad Map: San Luis Ranch

WATER SOURCE

Type of diversion and use of the water: Water is pumped from the Slough to an irrigation ditch and used to irrigate pasture north of the Slough. This is one of four diversions diverting a total of 47.0 cfs.

Water Right Permit Number: Application #014582 License #012074

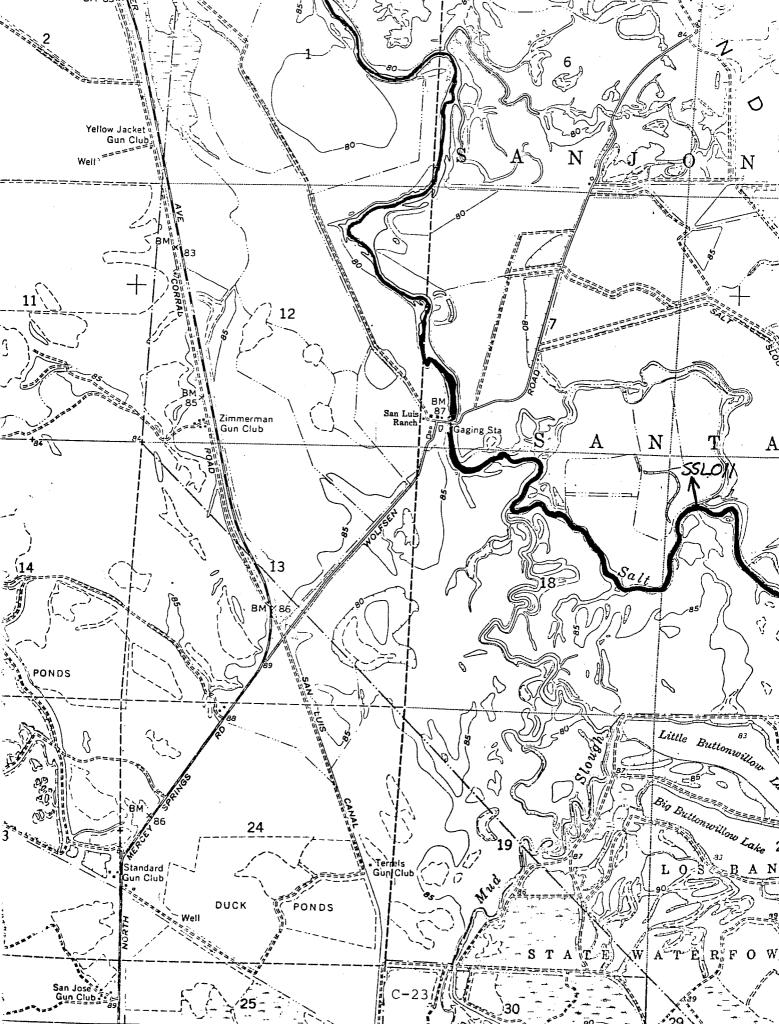
Diversion Ownership and Operation: Wolfsen Land and Cattle Company

P.O. Box 311

Los Banos, CA 93635

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with

respect to other canals, roads, districts boundaries or other



SITE ID #SSL012A-I

Site Name: Slough Mileage: 2.95N-3.98N

Site description, location, and access: From Los Banos take Mercy Springs Road north to Wolfsen Road. Turn northeast on Wolfsen Road and proceed to the San Luis Ranch. At this point, the road crosses over Salt Slough. From here continue along the road to the first dirt road to the east. Proceed east on this road. The road begins to parallel a large drain. Continue along this drain until it meets up with the Slough. At this point there is a wooden fence. Climb over the fence and proceed to the Slough. Follow the Slough west along the north bank to where a corrugated pipe enters the Slough from the north bank. This is site SSL012A.

Township/Range/Section: Secs. 17 and 18, T.9S, R.11E

County: Merced USGS Quad Map: San Luis Ranch

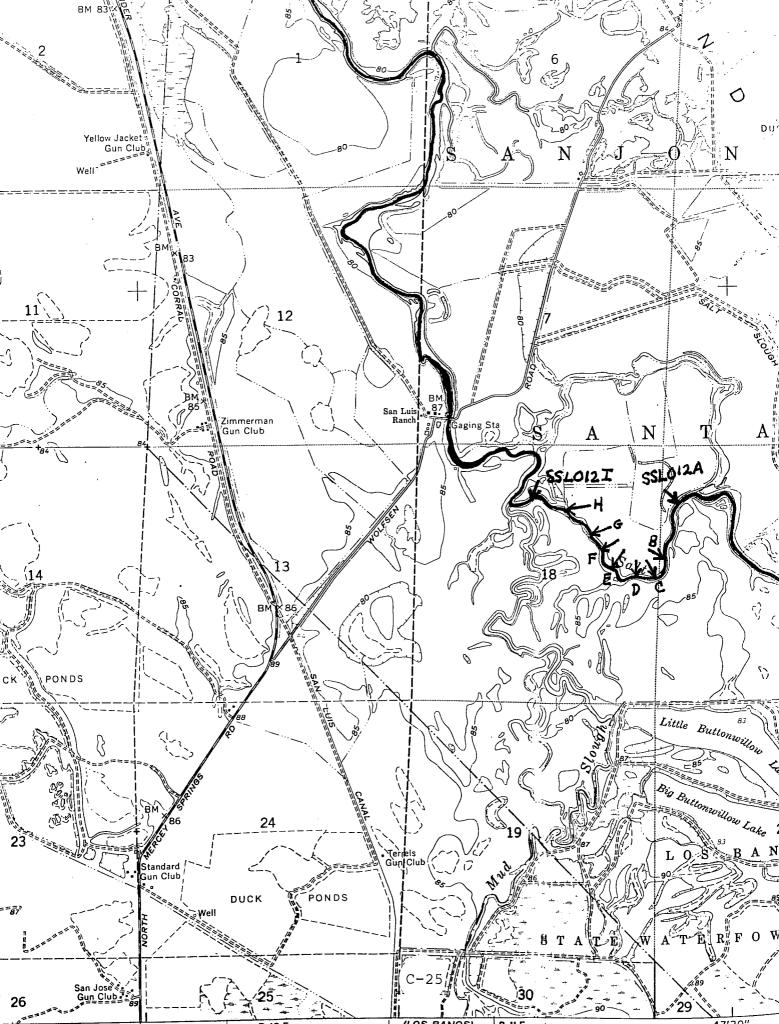
WATER SOURCE

Type and source of water being discharged (description): Sites SSL012A-H are all field drains draining pastureland from an area just north of Salt Slough. SSL012I is an irrigation spill from a small concrete lined ditch used for irrigating pastureland.

0 0,	Slough	
Site #	Mileage	Site Description
SSL012A	2.95NW	Corrugated pipe entering the Slough from the north bank.
SSL012B	3.27NW	Corrugated pipe entering the Slough from the west bank; 0.32 miles south of SSL012A along the Slough.
SSL012C	3.40N	Corrugated pipe entering the Slough from the north bank; 0.45 miles southwest of SSL012A along the Slough.
SSL012D	3.57E	Corrugated pipe entering the Slough from the north bank; 0.62 miles southwest of SSLO12A along the Slough.
SSL012E	3.65E	Corrugated pipe entering the Slough from the northeast bank; 0.7 miles southwest of SSL012A along the Slough.
SSL012F	3.70E	Corrugated pipe entering the Slough from the east bank; 0.75 miles southwest of SSLO12A along the Slough.
SSL012G	3.76N	Large corrugated pipe entering the Slough from the east bank; 0.8 miles southwest of SSL012A along the Slough.
SSL012H	3.87N	Corrugated pipe entering the Slough from the northeast bank; 0.92 miles southwest of SSL012A along the Slough.
SSL012I	3.98N	Corrugated pipe entering the Slough from the north bank; 1.03 miles west of SSL012A along the Slough.

Discharge Ownership and Operation: Wolfsen Land and Cattle Company

P.O. Box 311



SITE ID #SSL013

Site Name:

Slough Mileage: 3.34S

Site description, location, and access: From Los Banos take Mercy Springs Road north to Wolfsen Road. Turn northeast on Wolfsen Road and proceed to the San Luis Ranch. At this point, the road crosses over Salt Slough. From here, continue along the road to the first dirt road to the east. Proceed east on this road. The road begins to parallel a large drain. Continue along this drain until it meets up with the Slough. At this point, there is a wooden fence. Climb over the fence and proceed to the Slough. Follow the Slough southwest for approximately 0.5 miles to where a small channel enters the Slough from the south bank. This is the discharge site.

Township/Range/Section: SW 1/4, SW 1/4, NW 1/4, Sec. 17, T.9S, R.11E, MDB&M

Latitude/Longitude: Lat: 37° 09' 00" N Long: 120° 47' 46" W

County: Merced

USGS Quad Map: San Luis Ranch

WATER SOURCE

Type and source of water being discharged (description): This drain is a small field drain draining a small area of pastureland just south of Salt Slough.

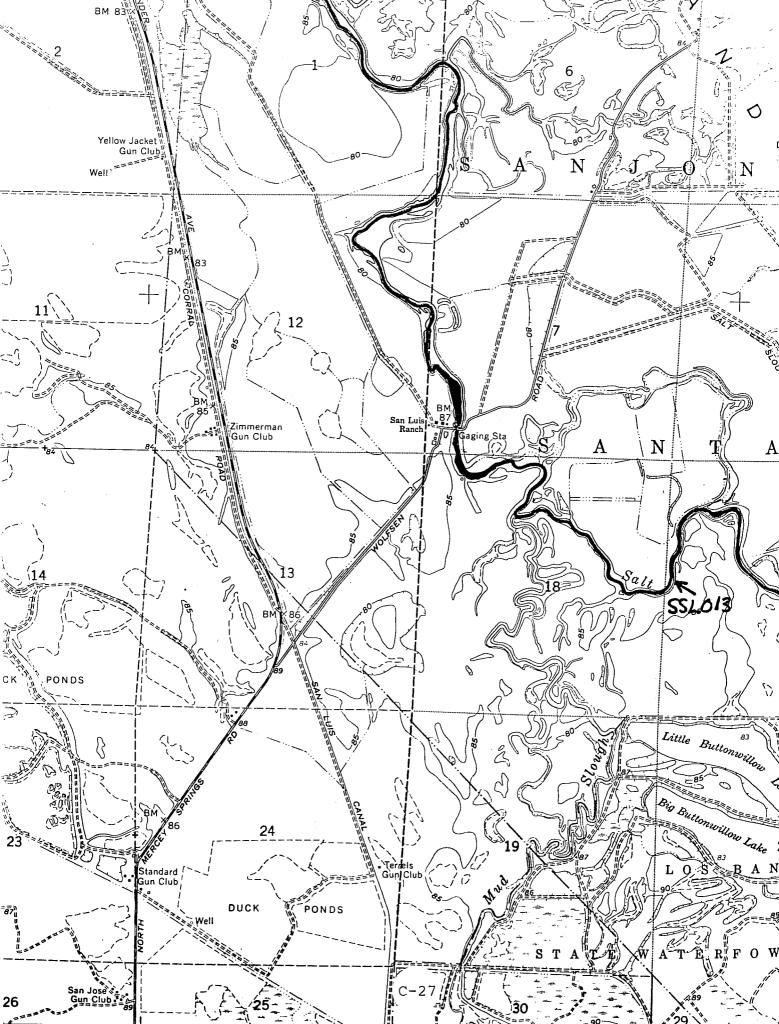
Discharge Ownership and Operation: Wolfsen Land and Cattle Company

P.O. Box 311

Los Banos, CA 93635

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with

respect to other canals, roads, districts boundaries or other



SITE ID #SSL014

Site Name:

Slough Mileage: 3.53W

Site description, location, and access: From Los Banos take Mercy Springs Road north to Wolfsen Road. Turn northeast on Wolfsen Road and proceed to the San Luis Ranch. At this point, the road crosses over Salt Slough. From here, continue along the road to the first dirt road to the east. Proceed east on this road. The road begins to parallel a large drain. Continue along this drain until it meets up with the Slough. At this point, there is a wooden fence. Climb over the fence and proceed to the Slough. Follow the Slough southwest for approximately 0.7 miles to where a fairly large channel enters the Slough from the south bank. This is the discharge site.

Township/Range/Section: NW 1/4, NE 1/4, SE 1/4, Sec. 18, T.9S, R.11E

Latitude/Longitude: Lat: 37° 09' 00" N

Long: 120° 47' 59" W

County: Merced

USGS Quad Map: San Luis Ranch

WATER SOURCE

Type and source of water being discharged (description): This drain drains pastureland from a small area south of Salt Slough.

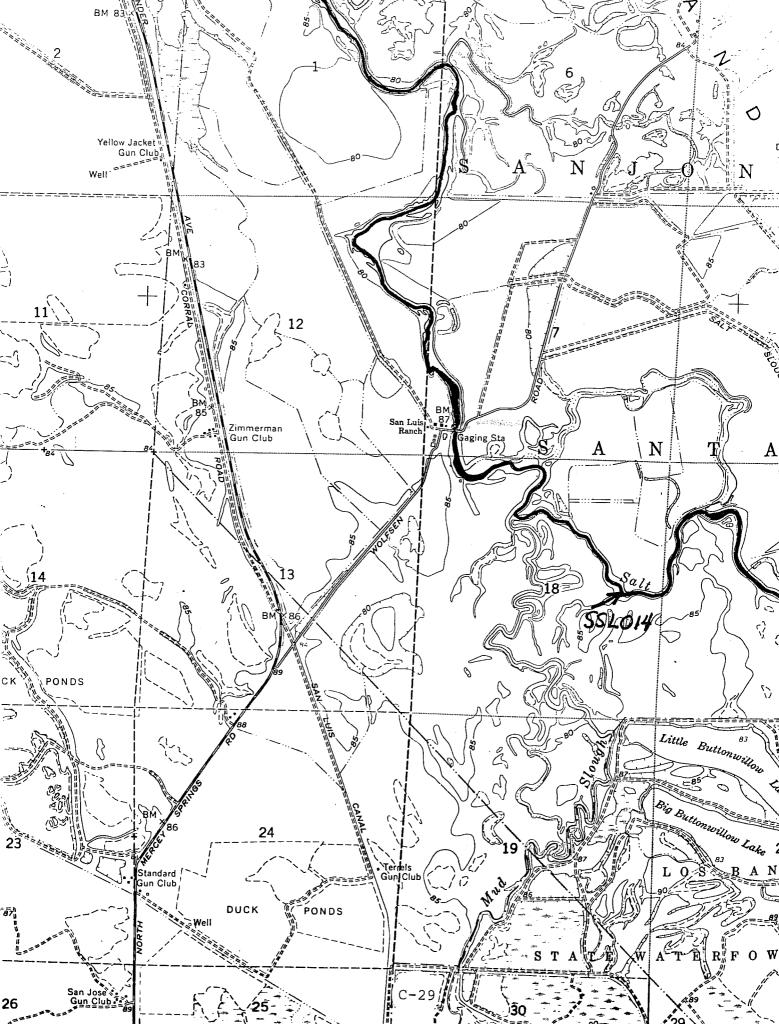
Discharge Ownership and Operation: Wolfsen Land and Cattle Company

P.O. Box 311

Los Banos, CA 93635

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with

respect to other canals, roads, districts boundaries or other



SITE ID #SSL015

Site Name: Mud Slough (South) discharge

Slough Mileage: 4.01W

to Salt Slough

Site description, location, and access: From Los Banos take Mercy Springs Road north to Wolfsen Road. Turn northeast on Wolfsen Road and proceed to the San Luis Ranch. At this point, the road crosses over Salt Slough. From here, follow the Slough southeast along the west bank for 0.75 miles to where a large channel enters the Slough from the southwest. This channel is Mud Slough (South).

Township/Range/Section: SE 1/4, NE 1/4, NW 1/4, Sec. 18, T.9S, R.11E, MDB&M

Latitude/Longitude: Lat: 37° 09' 15" N Long: 120° 48' 26" W

County: Merced USGS Quad Map: San Luis Ranch

WATER SOURCE

Type and source of water being discharged (description): Mud Slough (South) drains a large area south of Salt Slough. It receives drainage water from the San Luis Canal Company, the Grasslands Water District, and from upslope agricultural irrigation districts.

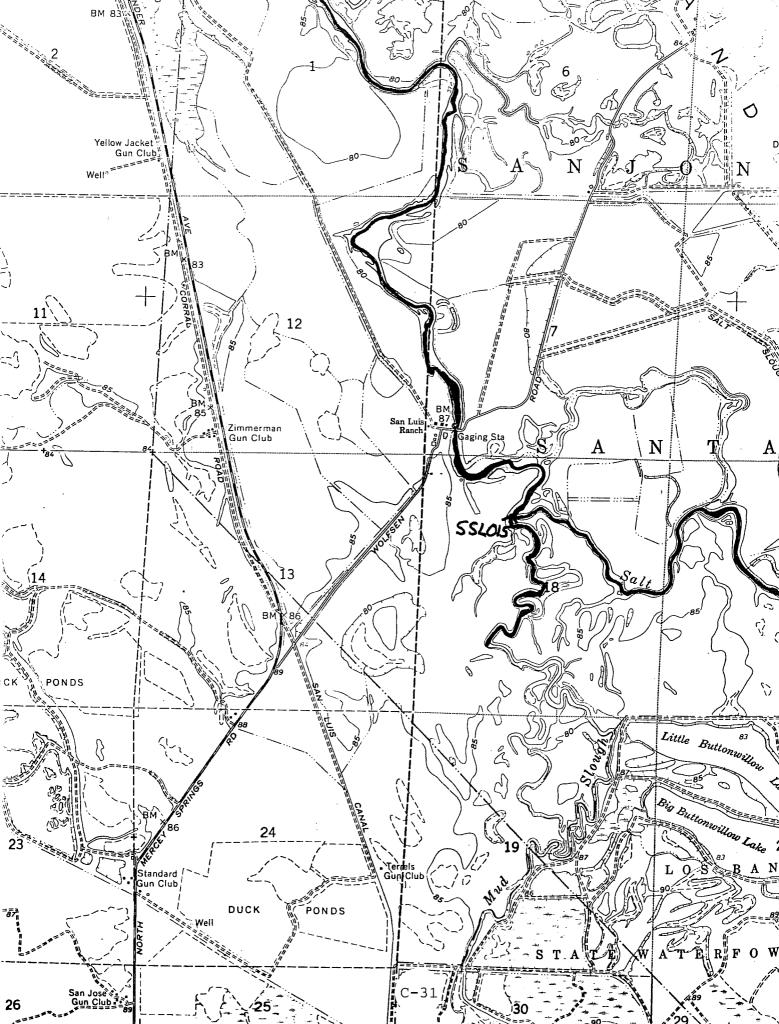
Comments on factors affecting water quality and quantity at the site: The water in Mud Slough (South) is a mixture of tailwater and tile drainage.

Discharge Ownership and Operation: Grasslands Water District 610 West Pacheco Blvd.

Los Banos, CA 93635

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with

respect to other canals, roads, districts boundaries or other



SITE ID #SSL016

Site Name:

Slough Mileage: 4.03W

Site description, location, and access: From Los Banos take Mercy Springs Road north to Wolfsen Road. Turn northeast on Wolfsen Road and proceed to the San Luis Ranch. At this point, the road crosses over Salt Slough. From here, follow the Slough southeast along the west bank for 0.70 miles to where a pipe enters the Slough. This is the discharge site.

Township/Range/Section: SE 1/4, NE 1/4, NW 1/4, Sec. 18, T.9S, R.11E, MDB&M

Latitude/Longitude: Lat: 37° 09' 15" N Long: 120° 48' 27" W

County: Merced

USGS Quad Map: San Luis Ranch

WATER SOURCE

Type and source of water being discharged (description): This drain is a field drain draining pastureland from a small area south of Salt Slough.

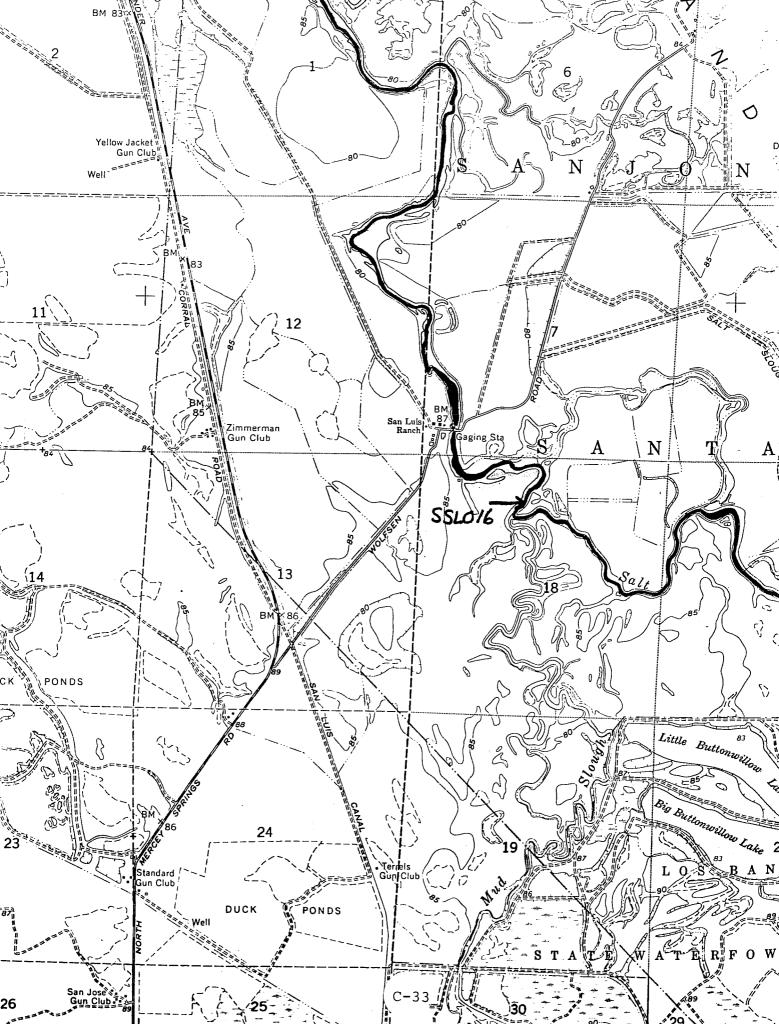
Discharge Ownership and Operation: Wolfsen Land and Cattle Company

P.O. Box 311

Los Banos, CA 93635

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with

respect to other canals, roads, districts boundaries or other



SITE ID #SSL017

Site Name:

Slough Mileage: 4.11E

Site description, location, and access: From Los Banos take Mercy Springs Road north to Wolfsen Road. Turn northeast on Wolfsen Road and proceed to the San Luis Ranch. At this point, the road crosses over Salt Slough. From here, follow the Slough southeast along the west bank for 0.65 miles to where a large corrugated pipe enters the Slough from this bank.

Township/Range/Section: NE 1/4, NE 1/4, NW 1/4, Sec. 18, T.9S, R.11E, MDB&M

Latitude/Longitude: Lat: 37° 09' 23" N Long: 120° 48' 13" W

County: Merced USGS Quad Map: San Luis Ranch

WATER SOURCE

Type and source of water being discharged (description): This drain drains a small area of pastureland just to the east of the discharge site.

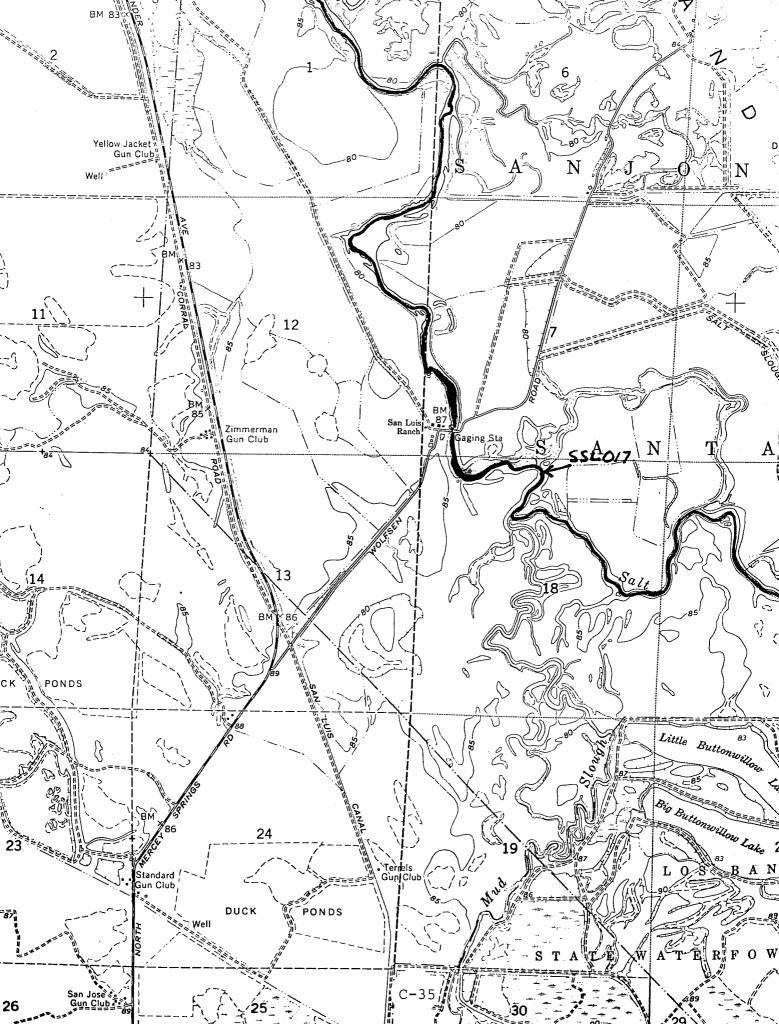
Discharge Ownership and Operation: Wolfsen Land and Cattle Company

P.O. Box 311

Los Banos, CA 93635

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with

respect to other canals, roads, districts boundaries or other



SITE ID #SSL018

Site Name:

Slough Mileage: 4.19N

Site description, location, and access: From Los Banos take Mercy Springs Road north to Wolfsen Road. Turn northeast on Wolfsen Road and proceed to the San Luis Ranch. At this point, the road crosses over Salt Slough. From here, follow the Slough southeast along the east bank for 0.55 miles to where a large channel enters the Slough from the north. This is the discharge site.

Township/Range/Section: NW 1/4, NW 1/4, NE 1/4, Sec. 18, T.9S, R.11E, MDB&M

Latitude/Longitude: Lat: 37° 09' 25" N

Long: 120° 48' 20" W

County: Merced

USGS Quad Map: San Luis Ranch

WATER SOURCE

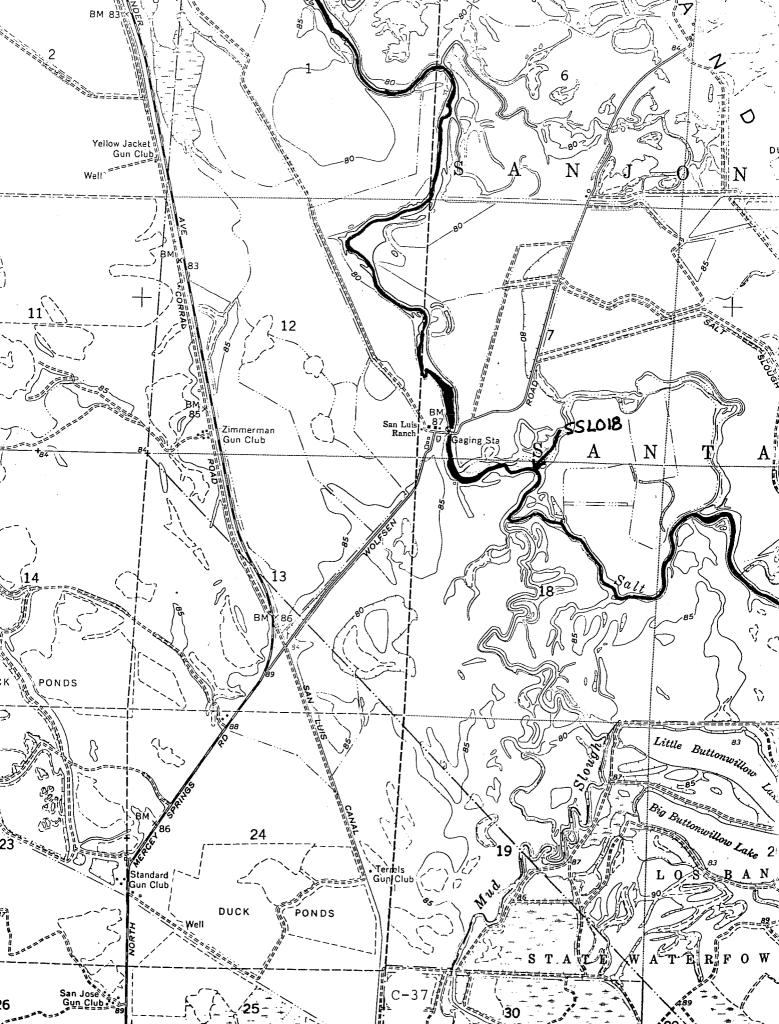
Type and source of water being discharged (description): This drain drains an area just south of the Island Canal and just north of the drain itself.

Discharge Ownership and Operation: John H. Lawrence

c/o Donner Laboratory 220 Glorietta Blvd. Orinda, CA 94563

SKETCH/MAP:

Attach or refer to a map or sketch that shows site location with respect to other canals, roads, districts boundaries or other reference points.



SITE ID #SSL019A-D

Site Name:

Slough Mileage: 4.21N-4.43N

Site description, location, and access: From Los Banos take Mercy Springs Road north to Wolfsen Road. Turn northeast on Wolfsen Road and proceed to the San Luis Ranch. At this point, the road crosses over Salt Slough. From here, follow the Slough southeast along the east bank for approximately 0.33 miles to where a small channel enters the Slough from the north bank. This is site SSL019A.

Township/Range/Section: NW 1/4, Sec. 18, T.9S, R.11E, MDB&M

County: Merced USGS Quad Map: San Luis Ranch

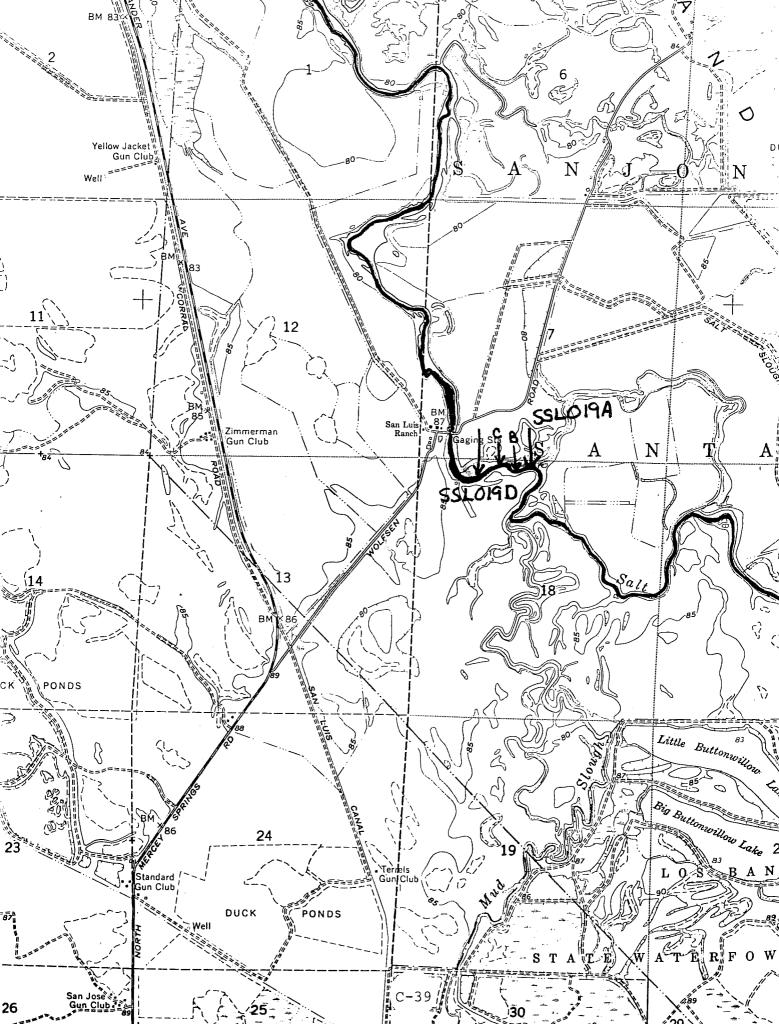
WATER SOURCE

Type and source of water being discharged (description): These drains all drain pastureland from a small area just north of Salt Slough.

Site #	Slough <u>Mileage</u>	Site Description
SSL019A	4.21N	Small channel entering the Slough from the north bank.
SSL019B	4.25N	Corrugated pipe entering the Slough from the north bank; 0.04 miles west of SSL019A.
SSL019C	4.36N	Corrugated pipe entering the Slough from the north bank; 0.15 miles west of SSL019A.
SSL019D	4.43N	Corrugated pipe entering the Slough from the north bank; 0.22 miles west of SSL019A.

Discharge Ownership and Operation: Wolfsen Land and Cattle Company

P.O. Box 311



SITE ID #SSL020

Site Name:

Slough Mileage: 4.22S

Site description, location, and access: From Los Banos take Mercy Springs Road north to Wolfsen Road. Turn northeast on Wolfsen Road and proceed to the San Luis Ranch. At this point, the road crosses over Salt Slough. From here, follow the Slough southeast along the west bank for 0.54 miles to where a channel enters the Slough. This is the discharge site.

Township/Range/Section: NE 1/4, NE 1/4, NW 1/4, Sec. 18, T.9S, R.11E, MDB&M

Latitude/Longitude: Lat: 37° 09' 25" N

Long: 120° 48' 29" W

County: Merced

USGS Quad Map: San Luis Ranch

WATER SOURCE

Type and source of water being discharged (description): This drain drains an a small area just south of Salt Slough.

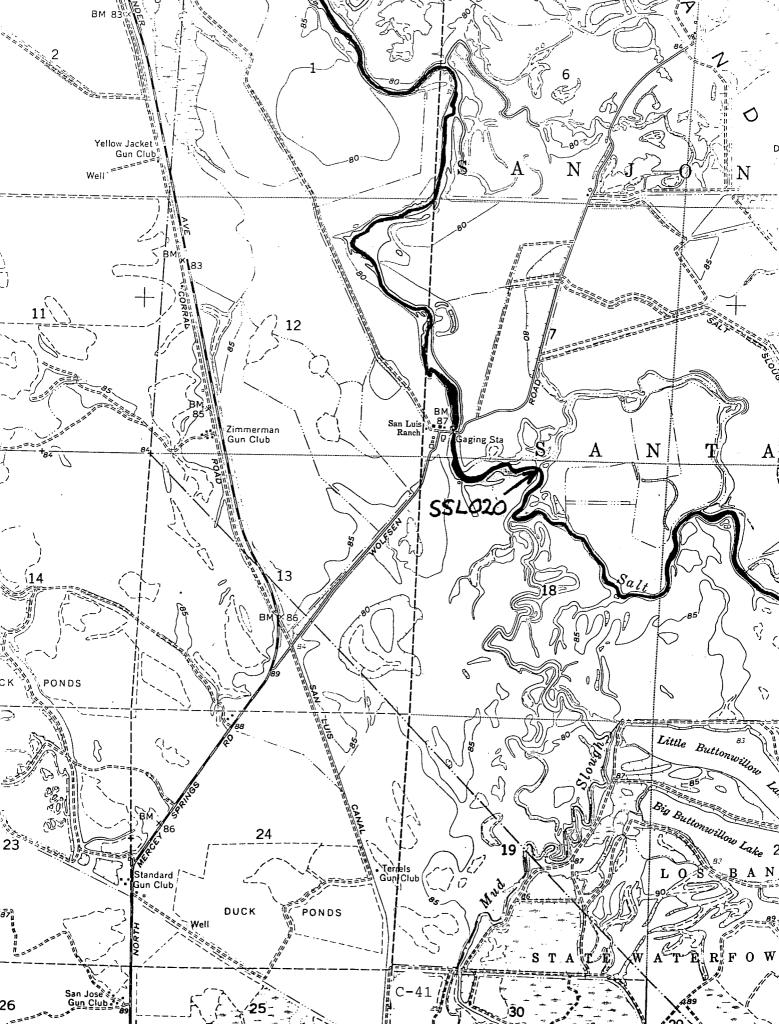
Discharge Ownership and Operation: Wolfsen Land and Cattle Company

P.O. Box 311

Los Banos, CA 93635

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with

respect to other canals, roads, districts boundaries or other



SITE ID #SSL021A-C

Site Name:

Slough Mileage: 4.29S-4.53S

Site description, location, and access: From Los Banos take Mercy Springs Road north to Wolfsen Road. Turn northeast on Wolfsen Road and proceed to the San Luis Ranch. At this point, the road crosses over Salt Slough. From here, follow the Slough southeast along the west bank for approximately 0.47 miles to where a pipe enters the Slough from the south bank. This is site SSL021A.

Township/Range/Section: NW 1/4, Sec. 18, T.9S, R.11E, MDB&M

County: Merced USGS Quad Map: San Luis Ranch

WATER SOURCE

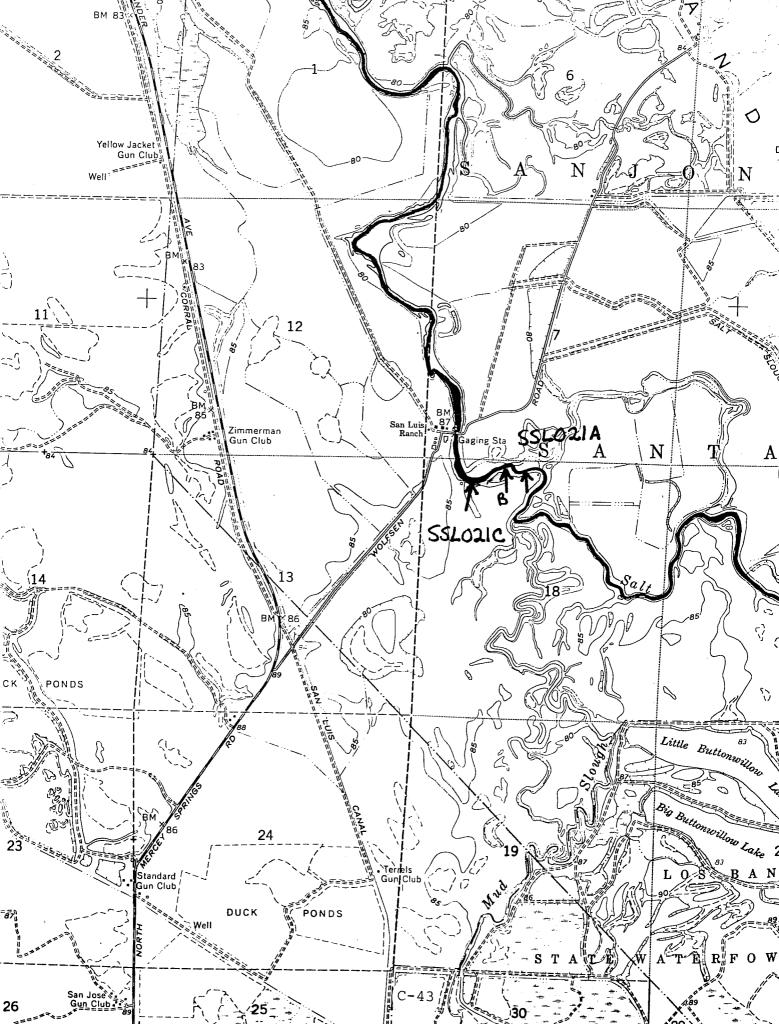
Type and source of water being discharged (description): These drains drain a small area of pastureland just south of Salt Slough.

Site #	Slough <u>Mileage</u>	Site Description
SSL021A	4.29\$	Pipe entering the Slough from the south bank
SSL021B	4.38\$	Corrugated pipe entering the Slough from the south bank; 0.09 miles west of SSL021A.
SSL021C	4.53\$	Large field drain (corrugated pipe) entering the south bank; 0.24 miles west of SSL021A.

Discharge Ownership and Operation: Wolfsen Land and Cattle Company

P.O. Box 311

Los Banos, CA 93635



SITE ID #SSL022

Site Name:

Slough Mileage: 4.56W

Site description, location, and access: From Los Banos take Mercy Springs Road north for approximately 6.5 miles to Wolfsen Road and turn northeast. Proceed approximately 0.9 miles to San Luis Ranch. At this point the road crosses Salt Slough. From this point, follow the west bank of Salt Slough, on foot, to the south for approximately 0.2 miles to where a large pump lifts water from the Slough. This is the diversion site.

Township/Range/Section: NE 1/4, NE 1/4, NE 1/4, Sec. 18, T.9S, R.11E, MDB&M

Latitude/Longitude: Lat: 37° 09' 25" N Long: 120° 48' 41" W

County: Merced

USGS Quad Map: San Luis Ranch

WATER SOURCE

Type of diversion and use of the water: Water pumped from the Slough at this point is used to irrigate pasture and stock watering in an area west of Salt Slough. This is one of four diversions diverting a total of 47.0 cfs.

Water Right Permit Number: Application #014582 License #012074

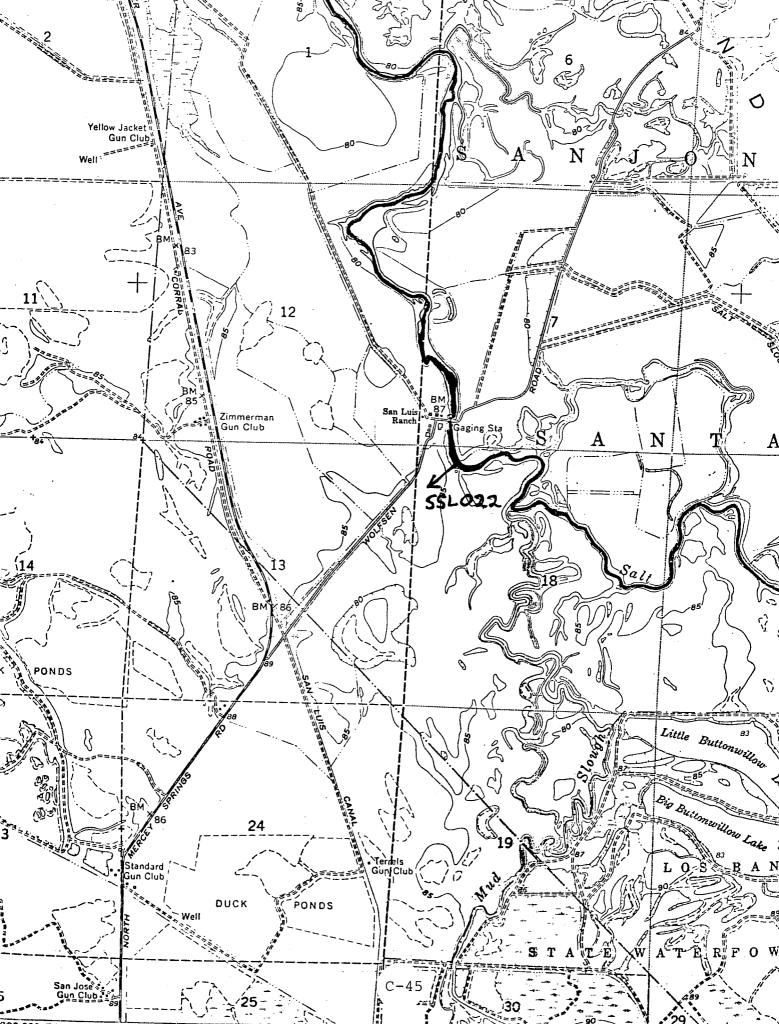
Diversion Ownership and Operation: Wolfsen Land and Cattle Company

P.O. Box 311

Los Banos, CA 93635

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with

respect to other canals, roads, districts boundaries or other



SITE ID #SSL023

Site Name:

Slough Mileage: 4.78W

Site description, location, and access: From Los Banos take Mercy Springs Road north for approximately 6.5 miles to Wolfsen Road and turn northeast. Proceed northeast for 0.9 miles to the Luis Ranch. From this point, follow the west bank to the north for approximately 0.02 miles to where a small corrugated pipe enters the Slough.

Township/Range/Section: NW 1/4, SW 1/4, SW 1/4, Sec. 7, T.9S, R.11E, MDB&M

Latitude/Longitude: Lat: 37° 09' 34" N

Long: 120° 48' 48" W

County: Merced

USGS Quad Map: San Luis Ranch

WATER SOURCE

Type and source of water being discharged (description): This is a very small drain used to drain runoff from the backyard of one of the houses at the San Luis Ranch.

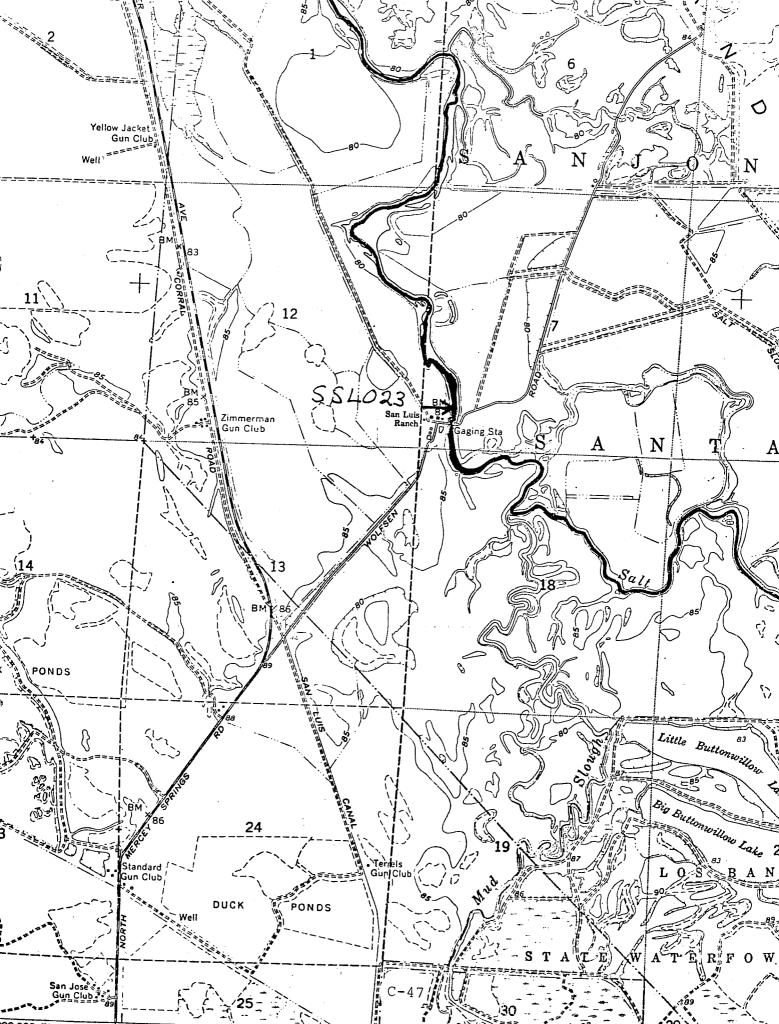
Discharge Ownership and Operation: Wolfsen Land and Cattle Company

P.O. Box 311

Los Banos, CA 93635

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with

respect to other canals, roads, districts boundaries or other



SITE ID #SSL024A-B

Site Name:

Slough Mileage: 4.87E-5.06E

Site description, location, and access: From Los Banos take Mercy Springs Road north for approximately 6.5 miles to Wolfsen Road. Proceed northeast on Wolfsen Road for 0.9 miles to the Luis Ranch. At this point, the road crosses over Salt Slough. From here, follow the east bank of the Slough north for 0.11 miles to where a corrugated pipe undercrosses the road. This is site SSLO24A.

Township/Range/Section: SW 1/4, Sec. 7, T.9S, R.11E, MDB&M

County: Merced

USGS Quad Map: San Luis Ranch

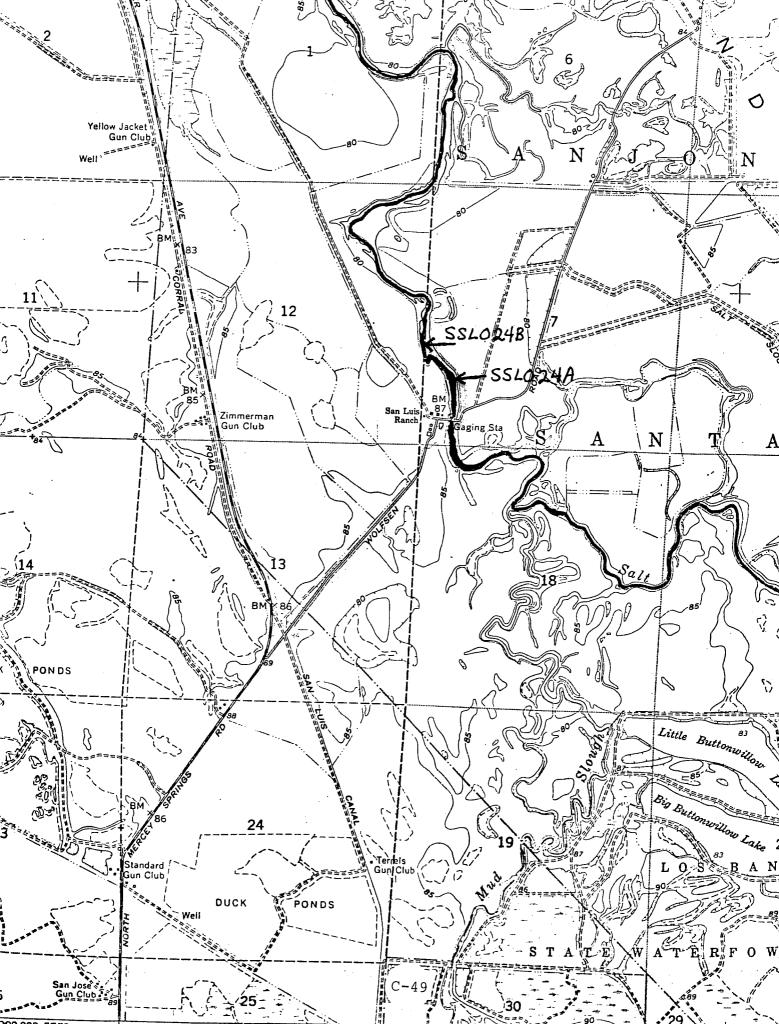
WATER SOURCE

Type and source of water being discharged (description): Each of the drains is a small field drain draining tailwater from a small area just east of the Slough.

Site #	Slough <u>Mileage</u>	Site Description
SSL024A	4.87E	Corrugated pipe undercrossing the road
SSL024B	5.06E	Corrugated pipe undercrossing the road, 0.19 miles north of SSL024A.

Discharge Ownership and Operation: William N. Jenkins

P.O. Box 176 Chico, CA



SITE ID #SSL025

Site Name: Hereford Drain discharge to Slough Mileage: 5.26E

Salt Slough

Site description, location, and access: From Los Banos take Mercy Springs Road north for approximately 6.5 miles to Wolfsen Road. Proceed northeast on Wolfsen Road for 0.9 miles to the Luis Ranch. At this point, the road crosses Salt Slough. From here follow the east bank of the Slough north for 0.5 miles to where a large drain undercrosses the road. This is the Hereford Drain.

Township/Range/Section: SW 1/4, SW 1/4, NW 1/4, Sec. 7, T.9S, R.11E, MDB&M

Latitude/Longitude: Lat: 37° 09' 58" N Long: 120° 48' 58" W

Long: 120° 48' 58" k

County: Merced USGS Quad Map: San Luis Ranch

WATER SOURCE

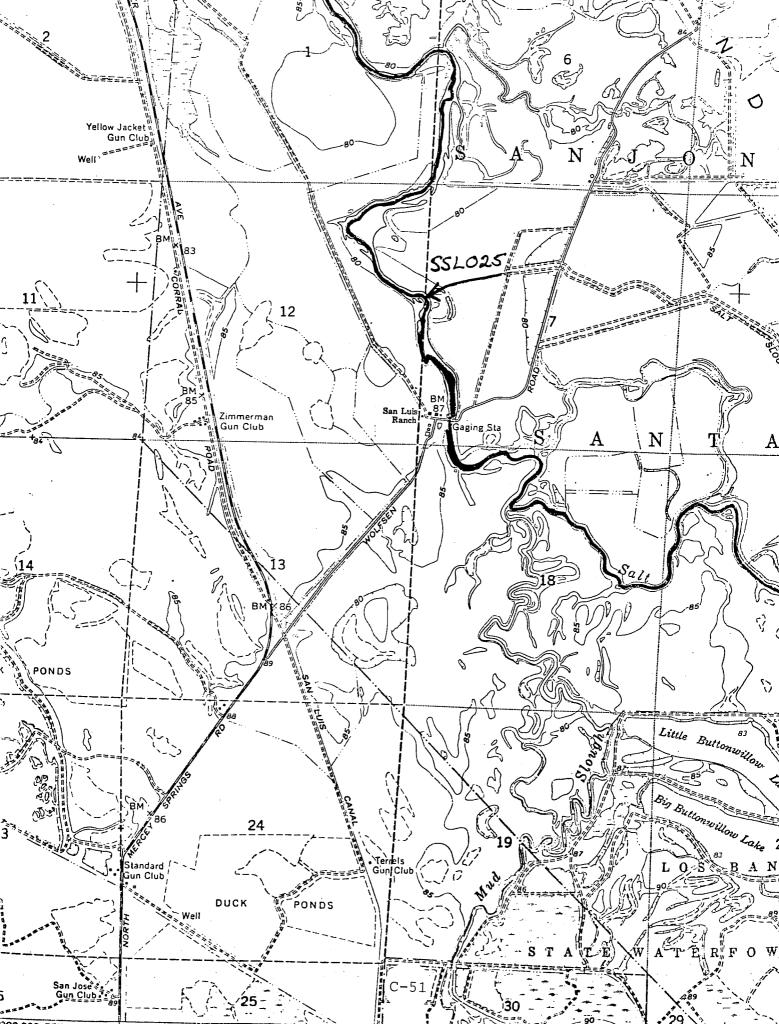
Type and source of water being discharged (description): The Hereford Drain drains a fairly large area in the extreme northern portion of the San Luis Canal Company. This area is to the east of Salt Slough, north of Island Canal Branch A and south of Island Canal Branch D.

Discharge Ownership and Operation: William N. Jenkins

P.O. Box 176 Chico, CA

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with

respect to other canals, roads, districts boundaries or other



SITE ID #SSL026A-C

Site Name:

Slough Mileage: 5.27N-6.36E

Site description, location, and access: From Los Banos take Mercy Springs Road north for approximately 6.5 miles to Wolfsen Road. Proceed northeast on Wolfsen Road for 0.9 miles to the Luis Ranch. At this point, the road crosses Salt Slough. From here, follow the east bank of the Slough north for 0.5 miles to where a large drain undercrosses the road. This is Hereford Drain. Site SSLO26A is the corrugated pipe entering the north bank just west of the Hereford Drain discharge.

Township/Range/Section: NW 1/4, Sec. 12, T.9S, R.10E, MDB&M

County: Merced

USGS Quad Map: San Luis Ranch

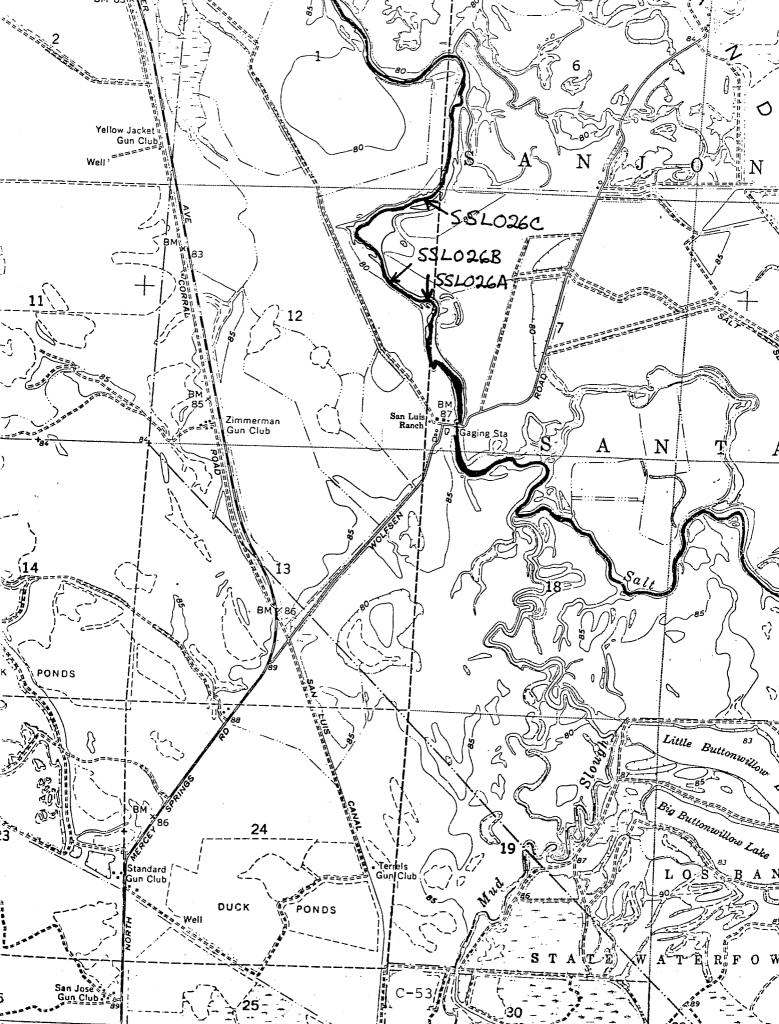
WATER SOURCE

Type and source of water being discharged (description): These drains are each small field drains draining tailwater from crops in an area just east of Salt Slough.

Site #	Slough <u>Mileage</u>	Site Description
SSL026A	5.27N	Corrugated pipe undercrossing the road
SSL026B	5.42N	Pipe undercrossing the levee road, 0.15 miles west of SSL026A.
SSL026C	6.36E	Pipe undercrossing the levee road, 1.09 miles north of SSL026A along the levee road.

Discharge Ownership and Operation: William N. Jenkins

P.O. Box 176 Chico, CA



SITE ID #SSL027

Site Name: Slough Mileage: 5.41S

Site description, location, and access: From Los Banos take Mercy Springs Road north for approximately 6.5 miles to Wolfsen Road and turn northeast. Proceed approximately 0.9 miles to San Luis Ranch. At this point the road crosses over Salt Slough. Proceed across the bridge and turn north onto the east bank of the Slough. Proceed north for approximately 0.65 miles to where a pump lifts water from the west side of the Slough. This is the diversion site.

Township/Range/Section: SW 1/4, SE 1/4, NE 1/4, Sec. 12, T.9S, R.10E, MDB&M

Latitude/Longitude: Lat: 37° 10' 00" N

Long: 120° 48' 59" W

County: Merced USGS Quad Map: San Luis Ranch

WATER SOURCE

Type of diversion and use of the water: Water pumped from the Slough at this point is used to irrigate pasture in an area west of Salt Slough and north of San Luis Ranch. This is one of four diversions diverting a total of 47.0 cfs.

Water Right Permit Number: Statement of riparian right #009611

Application #014582 License #012074

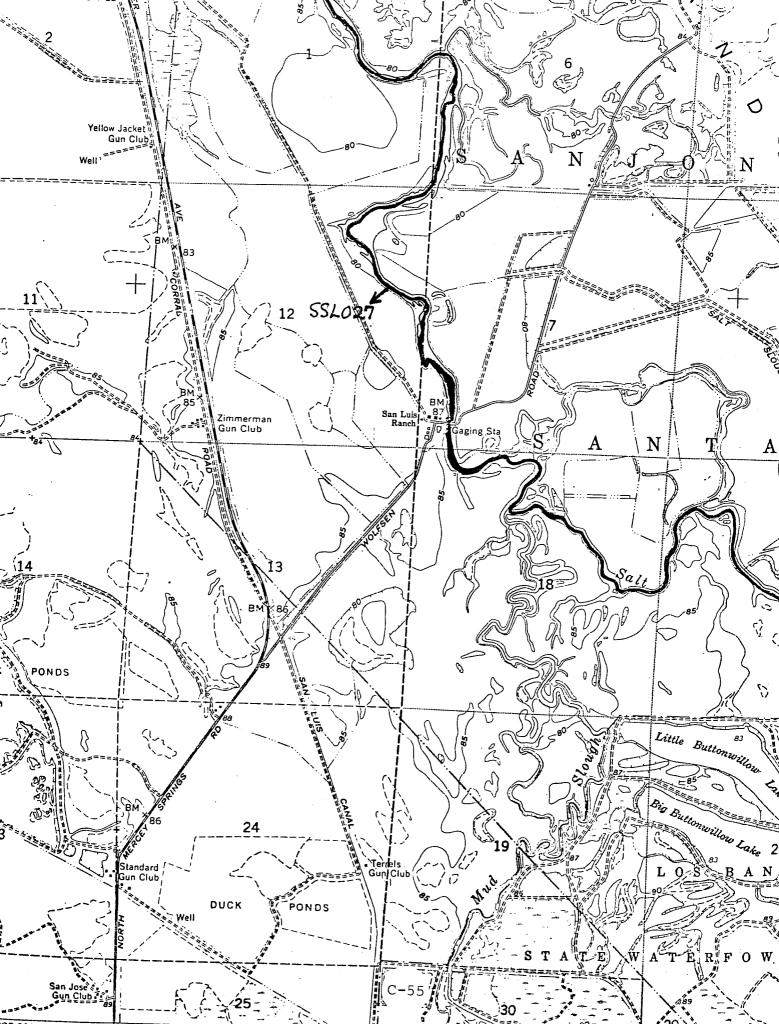
Diversion Ownership and Operation: Wolfsen Land and Cattle Company

P.O. Box 311

Los Banos, CA 93635

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with

respect to other canals, roads, districts boundaries or other



SITE ID #SSL028

Site Name:

Slough Mileage: 5.86W

Site description, location, and access: From Los Banos take Mercy Springs Road north for approximately 6.5 miles to Wolfsen Road. Proceed northeast on Wolfsen Road for 0.9 miles to the San Luis Ranch. At this point the road crosses Salt Slough. Proceed across the bridge and turn north onto the east bank of the Slough. From here, follow the east bank of the Slough north for approximately 1.1 miles to where a pump with a yellow motor lifts water from the west bank of the Slough. This is the diversion site.

Township/Range/Section: NW 1/4, NE 1/4, NE 1/4, Sec. 12, T.9S, R.10E, MDB&M

Latitude/Longitude: Lat: 37° 10' 16" N Long: 120° 49' 04" W

County: Merced

USGS Quad Map: San Luis Ranch

WATER SOURCE

Type of diversion and use of the water: Water is diverted at this point by a lift pump and is used to irrigate pastureland to the west of Salt Slough. This is one of four diversions diverting a total of 47.0 cfs.

Water Right Permit Number: Application #014582 License #012074

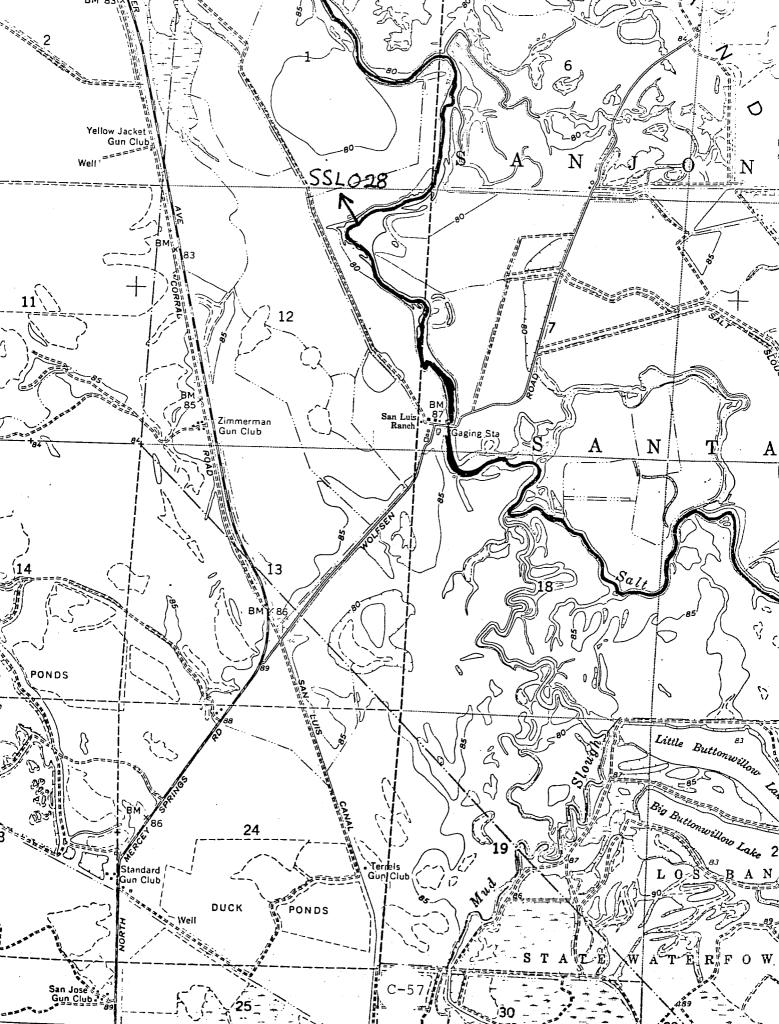
Diversion Ownership and Operation: Wolfsen Land and Cattle Company

P.O. Box 311

Los Banos, CA 93635

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with

respect to other canals, roads, districts boundaries or other



SITE ID #SSL029

Site Name:

Slough Mileage: 6.26N

Site description, location, and access: From Los Banos take Mercy Springs Road north for approximately 6.5 miles to Wolfsen Road. Proceed northeast on Wolfsen Road for 0.9 miles to the Luis Ranch. At this point, the road crosses Salt Slough. From here, walk along the west bank of the Slough for approximately 1.5 miles to where a small channel flows from an irrigation ditch to the Slough. This is the discharge site.

Township/Range/Section: SE 1/4, SE 1/4, SE 1/4, Sec. 1, T.9S, R.10E, MDB&M

Latitude/Longitude: Lat: 37° 10' 20" N Long: 120° 48' 50" W

Long: 120° 48' 50" W

County: Merced

USGS Quad Map: San Luis Ranch

WATER SOURCE

Type and source of water being discharged (description): Water discharged at this point is irrigation spill from a ditch used to irrigate pastureland just west of Salt Slough.

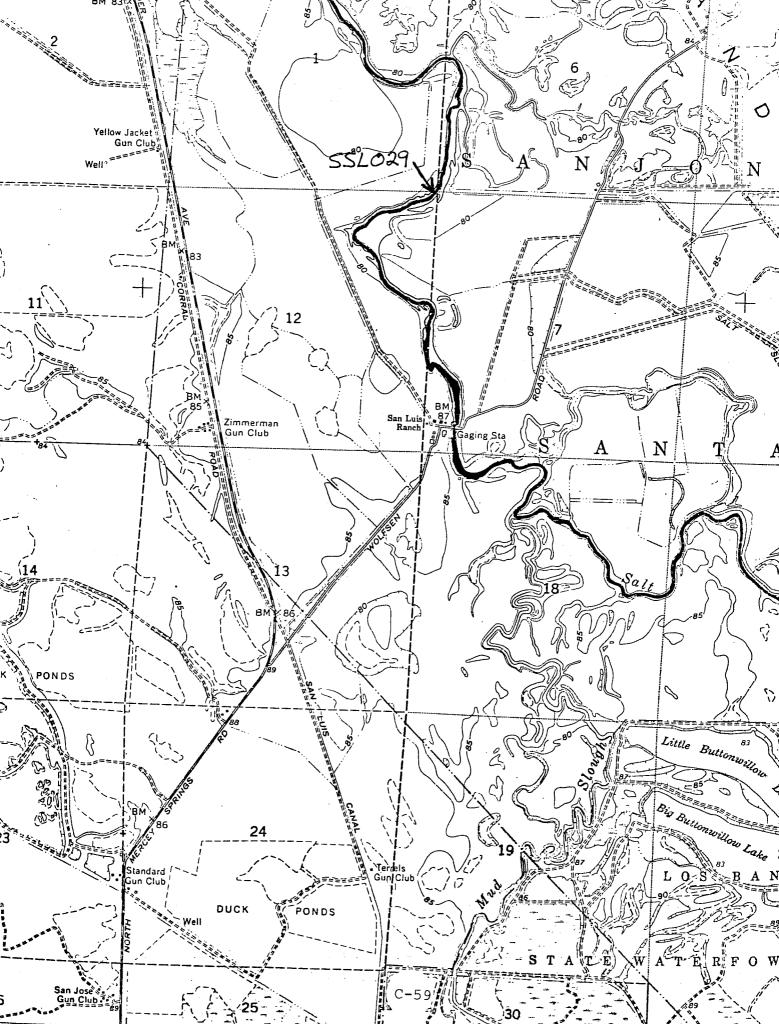
Discharge Ownership and Operation: Wolfsen Land and Cattle Company

P.O. Box 311

Los Banos, CA 93635

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with

respect to other canals, roads, districts boundaries or other



SITE ID #SSL030

Site Name:

Slough Mileage: 6.36E

Site description, location, and access: From Los Banos take Mercy Springs Road north for approximately 6.5 miles to Wolfsen Road. Proceed northeast on Wolfsen Road for approximately 2.1 miles to the entrance of the San Luis National Wildlife Refuge. At this point, you will have just passed over a large canal. Follow this canal west along the north side to Salt Slough. At the Slough, two large pumps (with yellow motors) lift water from the Slough into the canal. This is the diversion site.

Township/Range/Section: SW 1/4, SW 1/4, SW 1/4, Sec. 6, T.9S, R.11E

Latitude/Longitude: Lat: 37° 10' 20" N Long: 120° 48' 48" W

-

County: Merced

USGS Quad Map: San Luis Ranch

WATER SOURCE

Type of diversion and use of the water: Water at this point is lifted from the Slough by two large pumps. It is used to flood duck ponds in the San Luis Wildlife Refuge. The quantity of water diverted at this point is 40.9 cfs.

Water Right Permit Number: Application #11687

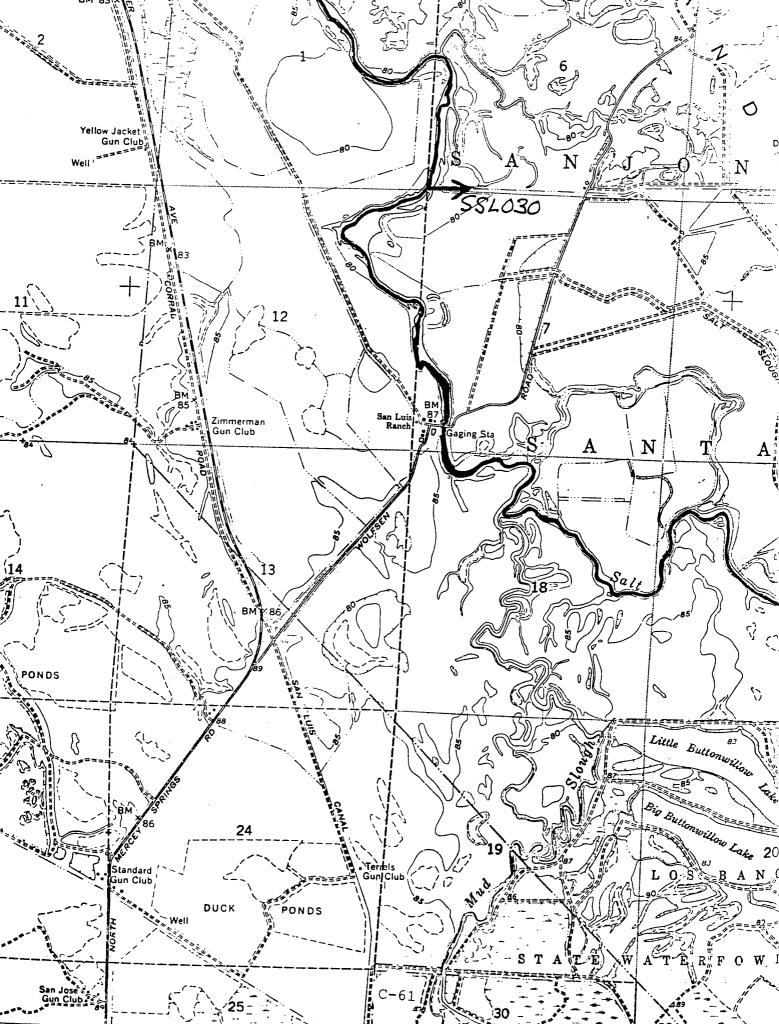
License #010741

Diversion Ownership and Operation: San Luis National Wildlife Refuge

U.S. Fish and Wildlife Service

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with

respect to other canals, roads, districts boundaries or other



SITE ID #SSL031A-B

Site Name:

Slough Mileage: 6.66E-6.91N

Site description, location, and access: From Los Banos take Mercy Springs Road north for approximately 6.5 miles to Wolfsen Road. Proceed northeast on Wolfsen Road for approximately 2.1 miles to the entrance of the San Luis National Wildlife Refuge. At this point, you will have just passed over a large canal. Follow this canal west, along the north side, to Salt Slough. From here, proceed north for 0.8 miles to where a small channel undercrosses the road. This is site SSLO31A.

Township/Range/Section: SW 1/4, Sec. 6, T.9S, R.11E, MDB&M

County: Merced USGS Quad Map: San Luis Ranch

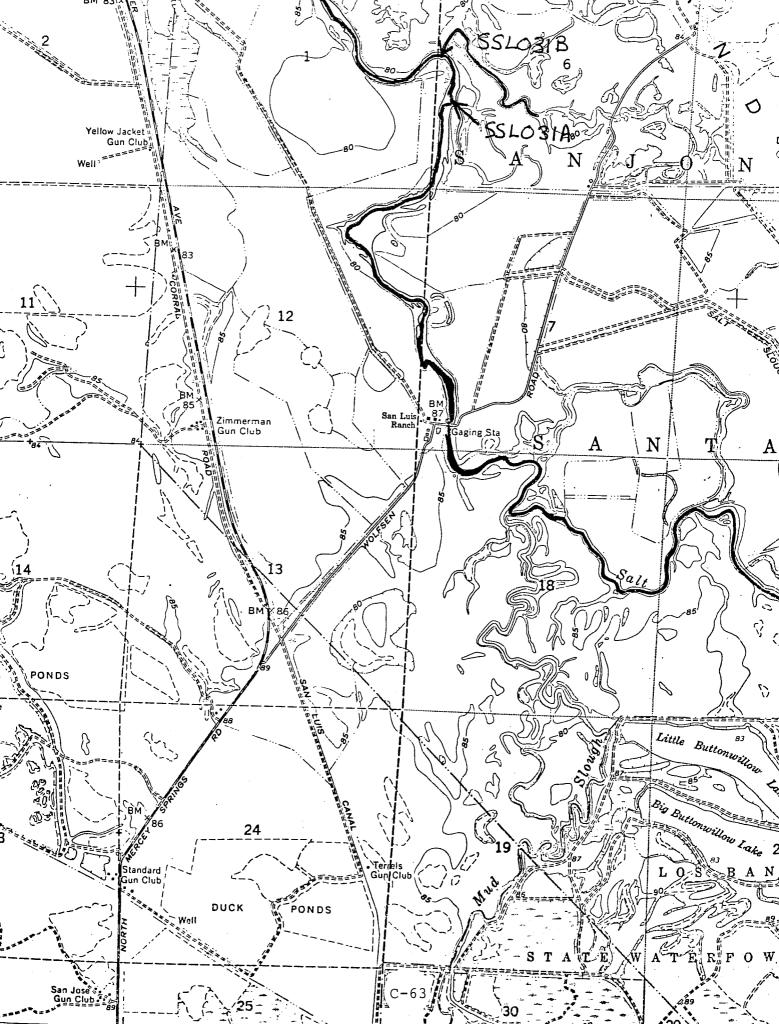
WATER SOURCE

Type and source of water being discharged (description): Both drains drain small areas of the San Luis National Wildlife Refuge just to the east of Salt Slough.

Site #	Slough <u>Mileage</u>	Site Description
SSL031A	6.66E	Small channel undercrosses levee road in corrugated pipe.
SSL031B	6.91N	Small channel undercrosses levee road in corrugated pipe 0.25 miles north of SSLO31A.

Discharge Ownership and Operation: San Luis National Wildlife Refuge

U.S. Fish and Wildlife Service



SITE ID #SSL032

Site Name:

Slough Mileage: 8.23W

Site description, location, and access: From Los Banos take Mercy Springs Road north for approximately 6.5 miles to Wolfsen Road. Proceed northeast on Wolfsen Road for approximately 2.1 miles to the entrance of the San Luis National Wildlife Refuge. At this point, you will have just passed over a large canal. Follow this canal west, along the north side, to Salt Slough. From here, proceed north for 1.87 miles to where a large channel enters the Slough from its west bank. This is the discharge site.

Township/Range/Section: NW 1/4, SE 1/4, SW 1/4, Sec. 36, T.8S, R.10E, MDB&M

Latitude/Longitude: Lat: 37° 11' 17" N Long: 120° 49' 38" W

County: Merced

USGS Quad Map: San Luis Ranch

WATER SOURCE

Type and source of water being discharged (description): This drain drains a fairly large area of pastureland to the west of Salt Slough.

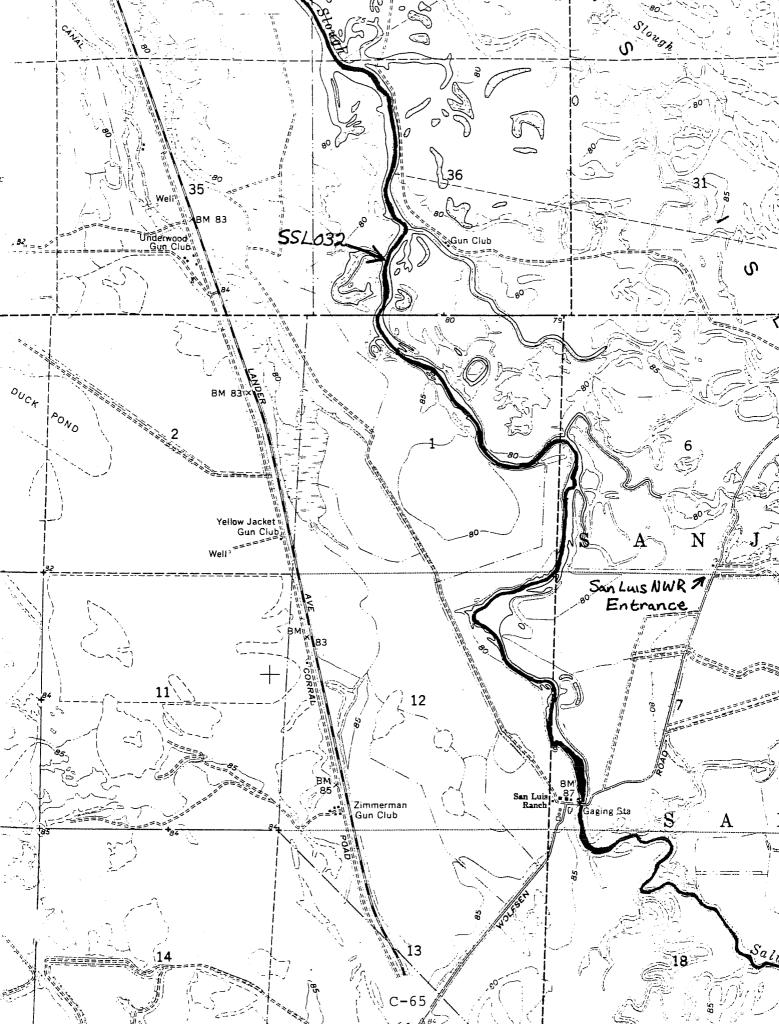
Discharge Ownership and Operation: Wolfsen Land and Cattle Company

P.O. Box 311

Los Banos, CA 93635

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with

respect to other canals, roads, districts boundaries or other



SITE ID #SSL033

Site Name: San Luis Drain #1 Slough Mileage: 8.31N

Site description, location, and access: From Los Banos take Mercy Springs Road north for approximately 6.5 miles to Wolfsen Road. Proceed northeast on Wolfsen Road for approximately 2.1 miles to the entrance of the San Luis National Wildlife Refuge. At this point, you will have just passed over a large canal. Follow this canal west, along the north side, to Salt Slough. From here, proceed north for 1.95 miles to where a large drain enters the Slough. This is the discharge site.

Township/Range/Section: SW 1/4, NE 1/4, SW 1/4, Sec. 36, T.8S, R.10E, MDB&M

Latitude/Longitude: Lat: 37° 11′ 30″ N

Long: 120° 49' 17" W

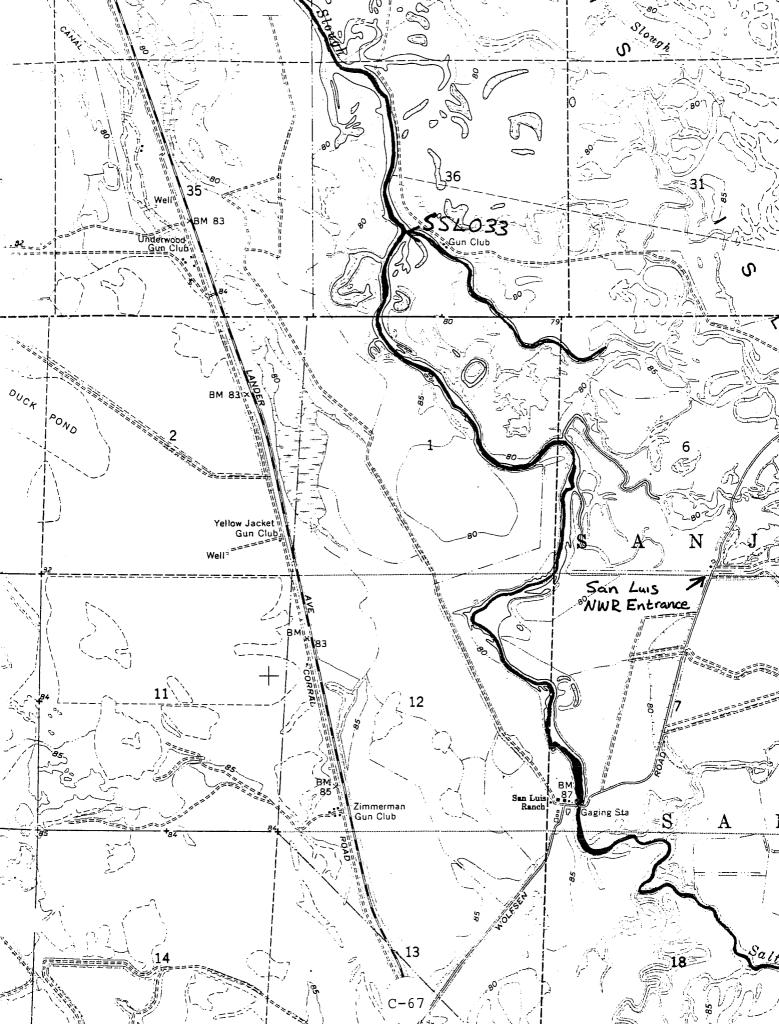
County: Merced USGS Quad Map: San Luis Ranch

WATER SOURCE

Type and source of water being discharged (description): This San Luis Drain #1 drains a large area in the southern section of the San Luis National Wildlife Refuge.

Discharge Ownership and Operation: San Luis National Wildlife Refuge U.S. Fish and Wildlife Service

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with respect to other canals, roads, districts boundaries or other



SITE ID #SSL034

Site Name:

Slough Mileage: 9.01W

Site description, location, and access: From Los Banos take Mercy Springs Road north for approximately 6.5 miles to Wolfsen Road. Proceed northeast on Wolfsen Road for approximately 2.1 miles to the entrance of the San Luis National Wildlife Refuge. At this point, you will have just passed over a large canal. Follow this canal west, along the north side, to Salt Slough. From here, proceed north for 2.65 miles to where a corrugated pipe enters the Slough from the west bank. This is the discharge site.

Township/Range/Section: NE 1/4, NW 1/4, NW 1/4, Sec. 36, T.8S, R.10E, MDB&M

Latitude/Longitude: Lat: 37° 11' 56" N

Long: 120° 49' 39" W

County: Merced

USGS Quad Map: San Luis Ranch

WATER SOURCE

Type and source of water being discharged (description): Water discharged at this point is drainage from pastureland just to the west of Salt Slough.

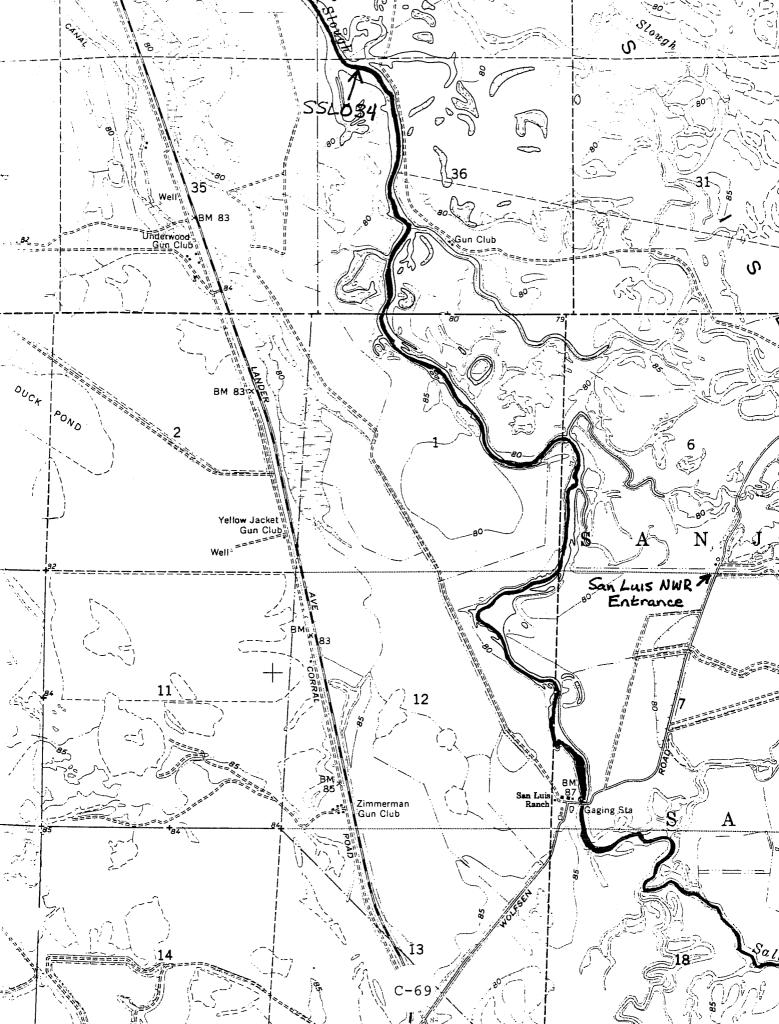
Discharge Ownership and Operation: Wolfsen Land and Cattle Company

P.O. Box 311

Los Banos, CA 93635

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with

respect to other canals, roads, districts boundaries or other



SITE ID #SSL035

Site Name:

Slough Mileage: 9.11W

Site description, location, and access: From Los Banos take Mercy Springs Road north for approximately 6.5 miles to Wolfsen Road. Proceed northeast on Wolfsen Road for approximately 2.1 miles to the entrance of the San Luis National Wildlife Refuge. At this point, you will have just passed over a large canal. Follow this canal west, along the north side, to Salt Slough. From here, proceed north for 2.75 miles to where a large channel enters from the west bank of the Slough. This is the discharge site.

Township/Range/Section: SW 1/4, SW 1/4, SW 1/4, Sec. 25, T.8S, R.10E, MDB&M

Latitude/Longitude: Lat: 37° 12' 08" N

Long: 120° 49' 44" W

County: Merced

USGS Quad Map: San Luis Ranch

WATER SOURCE

Type and source of water being discharged (description): This drain drains a number of small ponds to the southwest of Salt Slough.

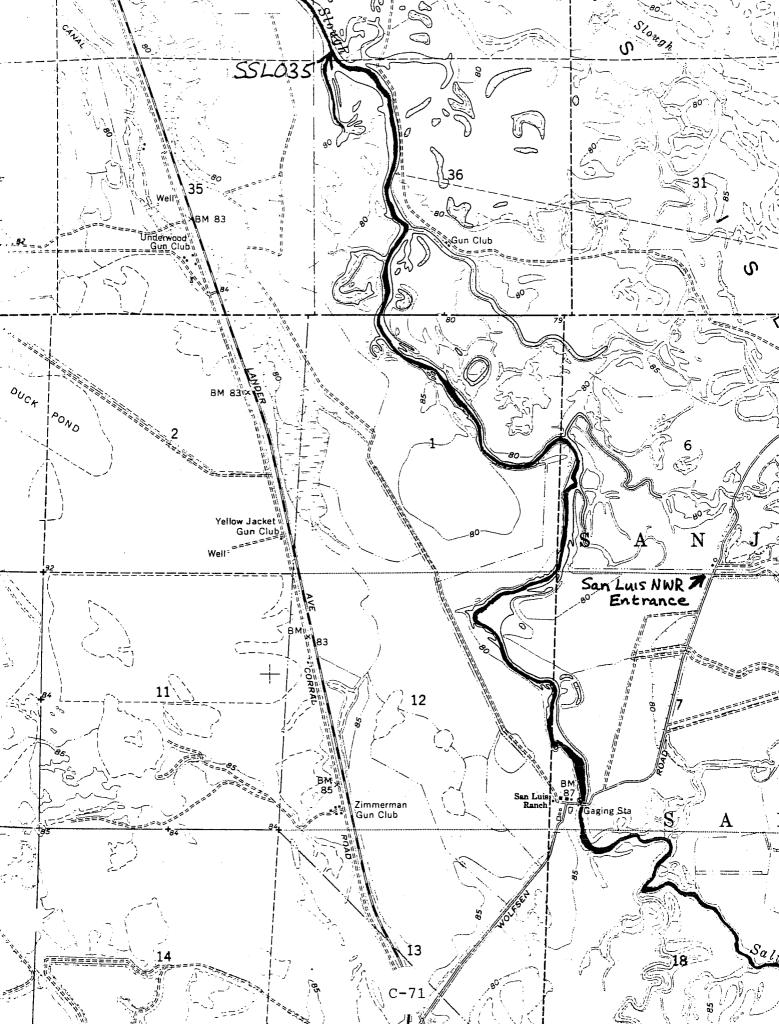
Discharge Ownership and Operation: Wolfsen Land and Cattle Company

P.O. Box 311

Los Banos, CA 93635

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with

respect to other canals, roads, districts boundaries or other



SITE ID #SSL036A-D

Site Name: Slough Mileage: 9.21W-9.56W

Site description, location, and access: From Los Banos take Mercy Springs Road north for approximately 6.5 miles to Wolfsen Road. Proceed northeast on Wolfsen Road for approximately 2.1 miles to the entrance of the San Luis National Wildlife Refuge. At this point, you will have just passed over a large canal. Follow this canal west, along the north side, to Salt Slough. From here, proceed north for 2.85 miles to where a corrugated pipe enters the Slough from the west bank. This is site SSLO36A.

Township/Range/Section: Secs. 25 and 26, T.8S, R.10E, MDB&M

County: Merced USGS Quad Map: San Luis Ranch

WATER SOURCE

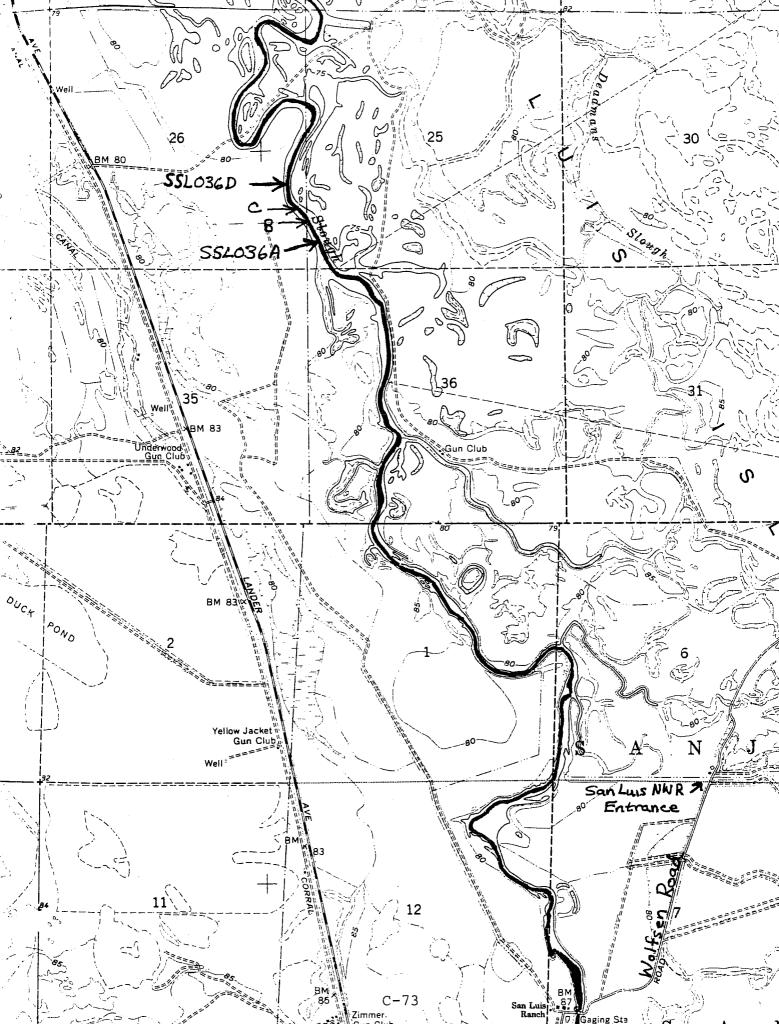
Type and source of water being discharged (description): Each of these drains drain small areas of pastureland just to the west of Salt Slough.

Site #	Slough <u>Mileage</u>	Site Description
SSL036A	9.21W	Small corrugated pipe entering the Slough from the west bank.
SSL036B	9.36W	Corrugated pipe entering the Slough from the west bank 0.15 miles north of SSL036A.
SSL036C	9.41W	Pipe entering the Slough from the west bank; 0.20 miles north of SSL036A.
SSL036D	9.56W	Corrugated pipe entering the Slough from the west bank; 0.35 miles north of SSL036A.

Discharge Ownership and Operation: Wolfsen Land and Cattle Company

P.O. Box 311

Los Banos, CA 93635



SITE ID #SSL037

Site Name: Slough Mileage: 9.61W

Site description, location, and access: From Los Banos take Mercy Springs Road north for approximately 6.5 miles to Wolfsen Road. Proceed northeast on Wolfsen Road for approximately 2.1 miles to the entrance of the San Luis National Wildlife Refuge. At this point, you will have just passed over a large canal. Follow this canal west, along the north side, to Salt Slough. From here, proceed north for 3.25 miles to where a channel enters the Slough from the west bank. This is the discharge site.

Township/Range/Section: SE 1/4, NE 1/4, SE 1/4, Sec. 26, T.8S, R.10E, MDB&M

Latitude/Longitude: Lat: 37° 12' 24" N

Long: 120° 49' 45" W

County: Merced USGS Quad Map: San Luis Ranch

WATER SOURCE

Type and source of water being discharged (description): This drain drains a fairly large area of pastureland to the west of Salt Slough and south of its discharge to Salt Slough.

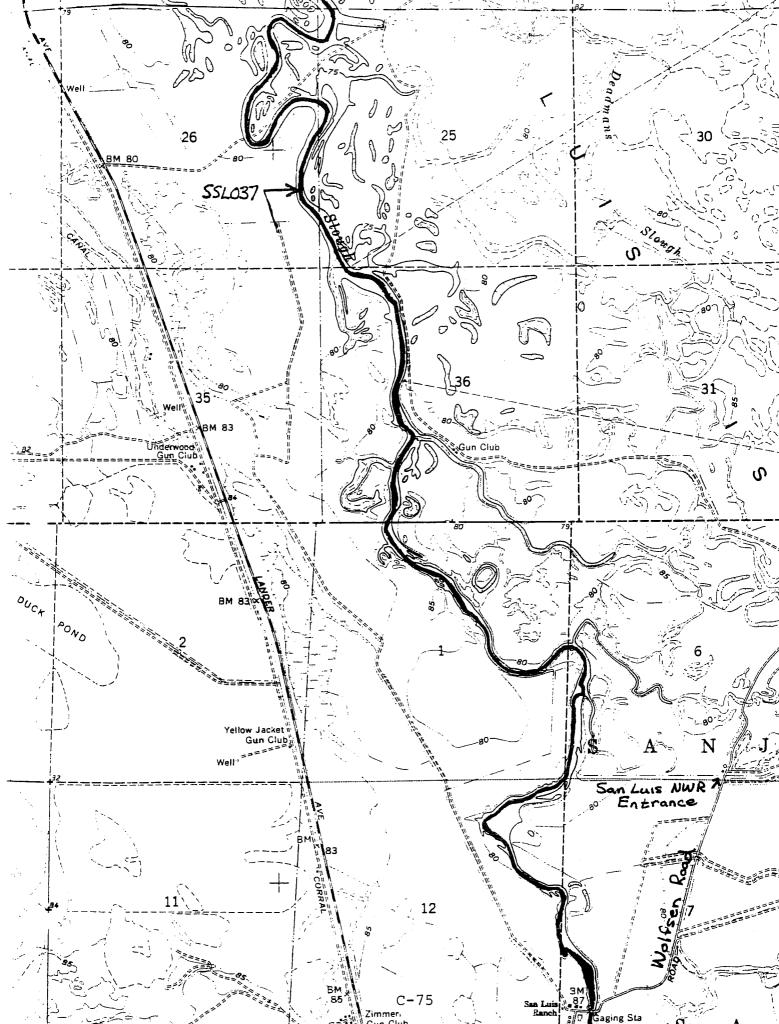
Discharge Ownership and Operation: Wolfsen Land and Cattle Company

P.O. Box 311

Los Banos, CA 93635

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with

respect to other canals, roads, districts boundaries or other



SITE ID #SSL038

Site Name:

Slough Mileage: 9.91N

Site description, location, and access: From Los Banos take Mercy Springs Road north for approximately 6.5 miles to Wolfsen Road. Proceed northeast on Wolfsen Road for approximately 2.1 miles to the entrance of the San Luis National Wildlife Refuge. At this point, you will have just passed over a large canal. Follow this canal west, along the north side, to Salt Slough. From here, proceed north for 3.55 miles to where a channel undercrosses the road, entering the Slough from the north. This is the discharge site.

Township/Range/Section: NE 1/4, SE 1/4, NE 1/4, Sec. 26, T.8S, R.10E, MDB&M

Latitude/Longitude: Lat: 37° 12' 40" N

Long: 120° 49' 47" W

County: Merced

USGS Quad Map: San Luis Ranch

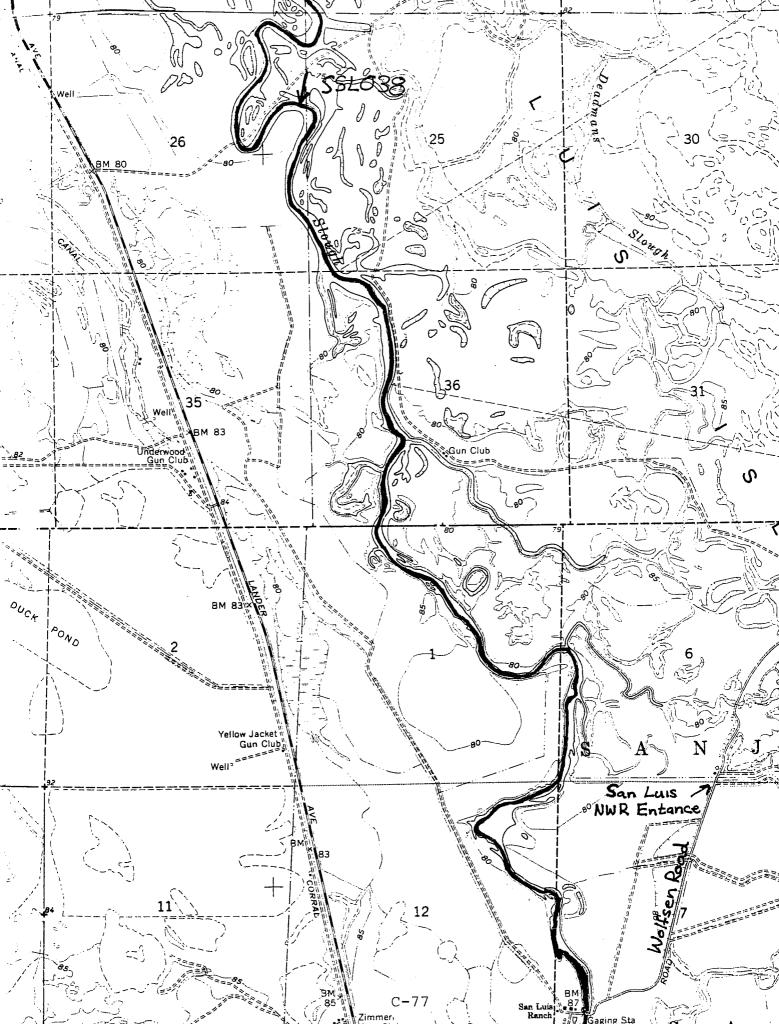
WATER SOURCE

Type and source of water being discharged (description): This drain drains water from a small portion of the San Luis National Wildlife Refuge just to the east of Salt Slough.

Discharge Ownership and Operation: San Luis National Wildlife Refuge U.S. Fish and Wildlife Service

SKETCH/MAP:

Attach or refer to a map or sketch that shows site location with respect to other canals, roads, districts boundaries or other reference points.



SITE ID #SSL039

Slough Mileage: 10.21W Site Name:

Site description, location, and access: From Los Banos take Mercy Springs Road north for approximately 6.5 miles to Wolfsen Road. Proceed northeast on Wolfsen Road for approximately 2.1 miles to the entrance of the San Luis National Wildlife Refuge. At this point, you will have just passed over a large canal. Follow this canal west, along the north side, to Salt Slough. From here, proceed north for 3.85 miles to where a bridge crosses Salt Slough. Just south of this bridge, on the west bank, a pump lifts water from the Slough. This is the diversion site.

Township/Range/Section: NE 1/4, NW 1/4, SE 1/4, Sec. 26, T.8S, R.11E, MDB&M

Lat: 37° 12' 31" N Long: 120° 50' 05" W Latitude/Longitude:

County: Merced **USGS Quad Map:** San Luis Ranch

Type of diversion and use of the water: At this site, water is lifted from the Slough by pump and used to irrigate pastureland west of Salt Slough. The quantity of water diverted at this point is 3.0 cfs.

Water Right Permit Number: Application #013508 License #005016

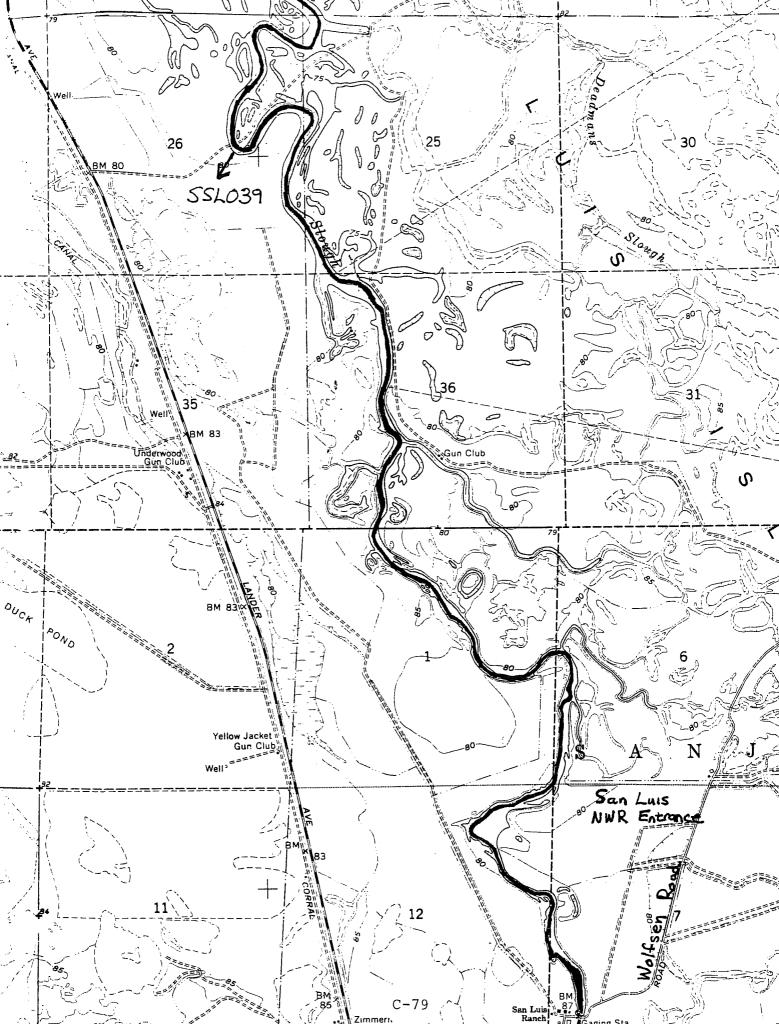
Diversion Ownership and Operation: Wolfsen Land and Cattle Company

P.O. Box 311

Los Banos, CA 93635

Attach or refer to a map or sketch that shows site location with SKETCH/MAP:

respect to other canals, roads, districts boundaries or other



SITE ID #SSL040

Site Name: Slough Mileage: 11.01E

Site description, location, and access: From Los Banos take Mercy Springs Road north for approximately 6.5 miles to Wolfsen Road. Proceed northeast on Wolfsen Road for approximately 2.1 miles to the entrance of the San Luis National Wildlife Refuge. At this point, you will have just passed over a large canal. Follow this canal west, along the north side, to Salt Slough. From here, proceed north for 3.65 miles to where the levee road intersects with another dirt road. Head northeast on this road for 0.5 miles to a large pumping station. This is the diversion site.

Township/Range/Section: NE 1/4, NW 1/4, NW 1/4, Sec. 25, T.8S, R.10E, MDB&M

Latitude/Longitude: Lat: 37° 12' 56" N

Long: 120° 49' 31" W

County: Merced USGS Quad Map: San Luis Ranch

Type of diversion and use of the water: Water is diverted at this point by two large pumps. It is used to flood duck ponds in the northern portion of the San Luis National Wildlife Refuge. The quantity of water diverted at this point is 20.2 cfs.

Water Right Permit Number: Application #011688

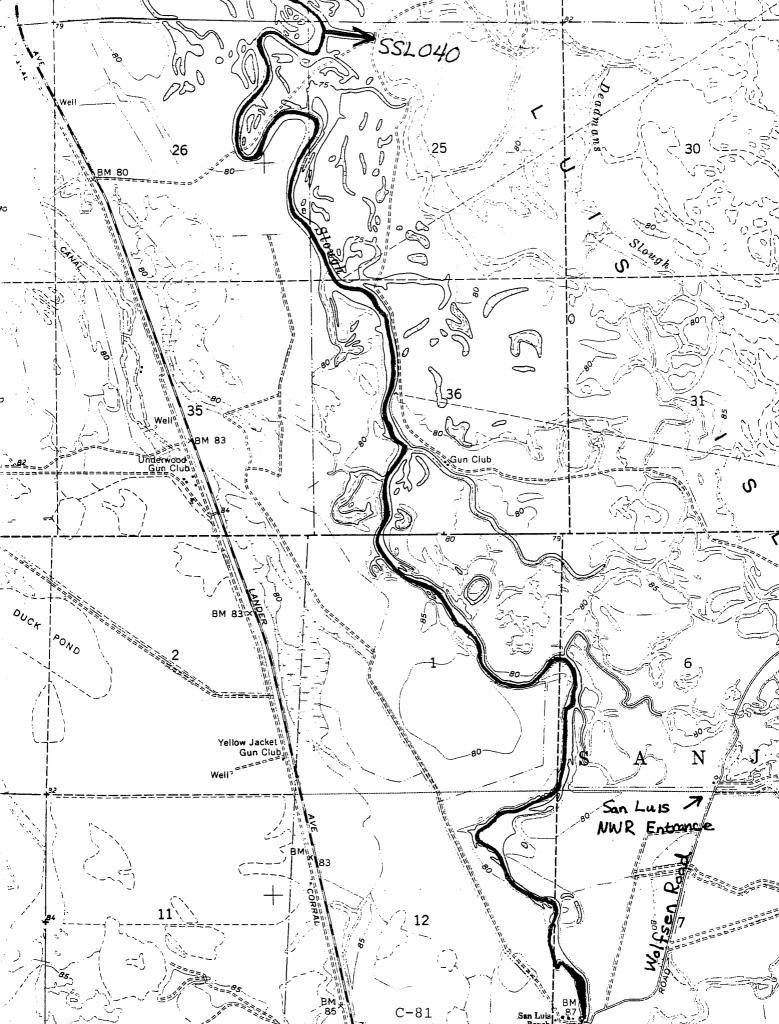
License #010120

Diversion Ownership and Operation: San Luis National Wildlife Refuge

U.S. Fish and Wildlife Service

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with

respect to other canals, roads, districts boundaries or other



SITE ID #SSL041

Site Name:

Slough Mileage: 11.76W

Site description, location, and access: From Los Banos take Mercy Springs Road (Lander Avenue) north for approximately 13 miles to where Salt Slough undercrosses the road. From here walk southeast, along the southern bank, for approximately 2.54 miles to where a large channel enters the Slough from the west. This is the site.

Township/Range/Section: SE 1/4, NW 1/4, SE 1/4, Sec. 23, T.8S, R.10E, MDB&M

Latitude/Longitude: Lat: 37° 13' 18" N

Long: 120° 50' 07" W

County: Merced

USGS Quad Map: San Luis Ranch

WATER SOURCE

Type and source of water being discharged (description): This is a naturally occurring channel which may act as a diversion from, or discharge to, Salt Slough, depending on the flow in Salt Slough and surrounding ground water levels.

Comments on factors affecting water quality and quantity at the site: At times of high flow in Salt Slough, water will flow out of Salt Slough at this point. At times of high ground water, water will probably flow into the Slough from this channel.

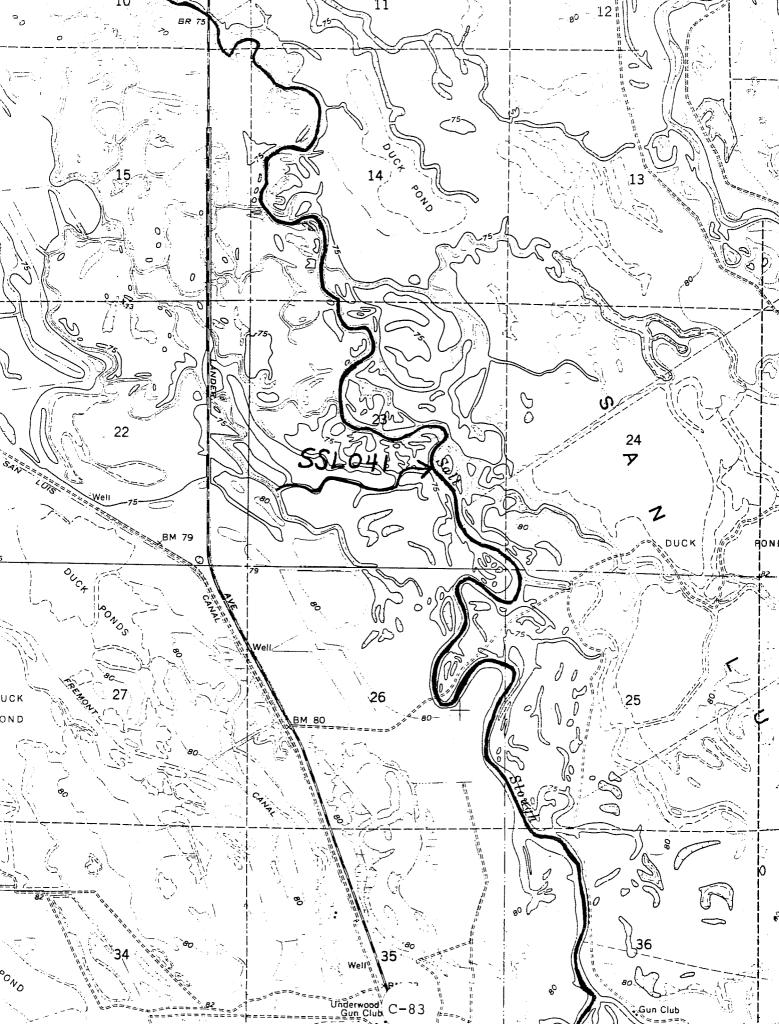
Discharge Ownership and Operation: Anna Freitas

1443 Tulare Street

Newman, CA

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with

respect to other canals, roads, districts boundaries or other



SITE ID #SSL042

Site Name: Deadman's Slough discharge Slough Mileage: 12.02E

to Salt Slough

Site description, location, and access: From Los Banos take Mercy Springs Road (Lander Avenue) north for approximately 13 miles to where Salt Slough undercrosses the road. From here walk southeast, along the southern bank, for approximately 2.28 miles to where a large channel enters from the east bank. This is Deadman's Slough.

Township/Range/Section: NW 1/4, NE 1/4, SE 1/4, Sec. 23, T.8S, R.10E, MDB&M

Latitude/Longitude: Lat: 37° 13' 25" N

Long: 120° 50' 04" W

County: Merced USGS Quad Map: San Luis Ranch

WATER SOURCE

Type and source of water being discharged (description): Deadman's Slough drains a number of duck ponds to the east of Salt Slough.

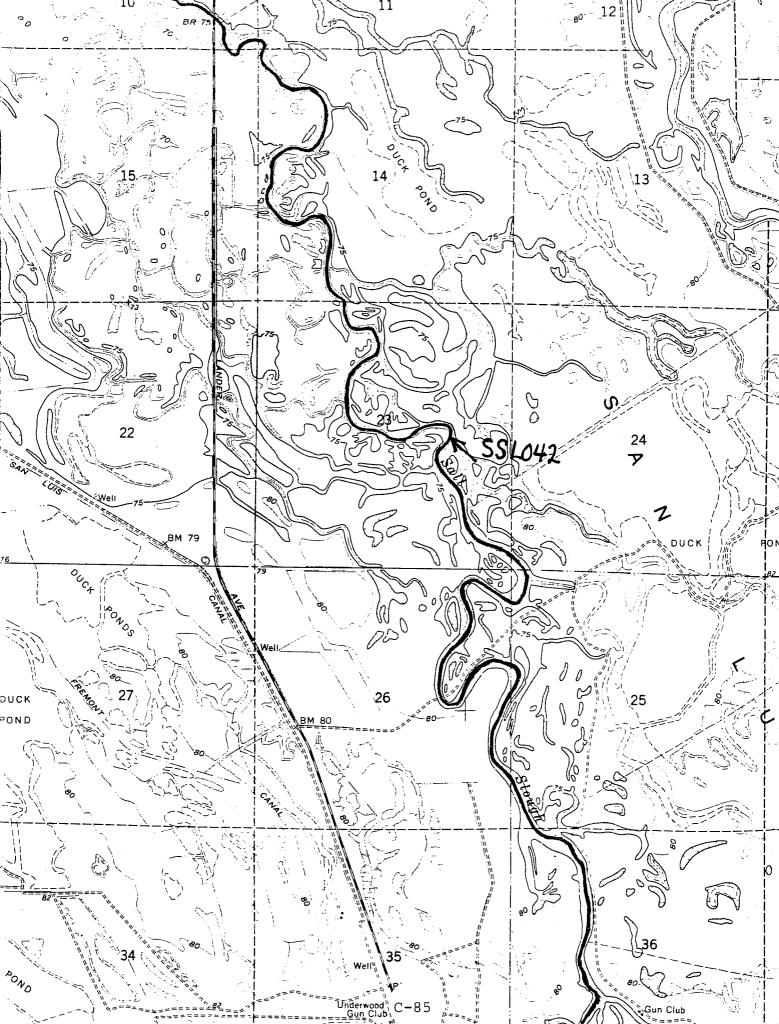
Discharge Ownership and Operation: Gallo Cattle Company

10561 W. Hwy. 140

Atwater, CA

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with

respect to other canals, roads, districts boundaries or other



SITE ID #SSL043A-C

Site Name:

Slough Mileage: 12.45W-12.67W

Site description, location, and access: From Los Banos take Mercy Springs Road (Lander Avenue) north for approximately 13 miles to where Salt Slough undercrosses the road. From here, walk southeast, along the southern bank for 1.85 miles to where a large channel enters the Slough from the southeast. This is site SSL043A.

Township/Range/Section: Secs. 23, T.8S, R.11E, MDB&M

County: Merced

USGS Quad Map: San Luis Ranch

WATER SOURCE

Type and source of water being discharged (description): These three channels are branches of the same naturally occurring channel. These channels may act as either a discharge to, or diversion from, Salt Slough, depending on surrounding ground water levels and relative flow in Salt Slough.

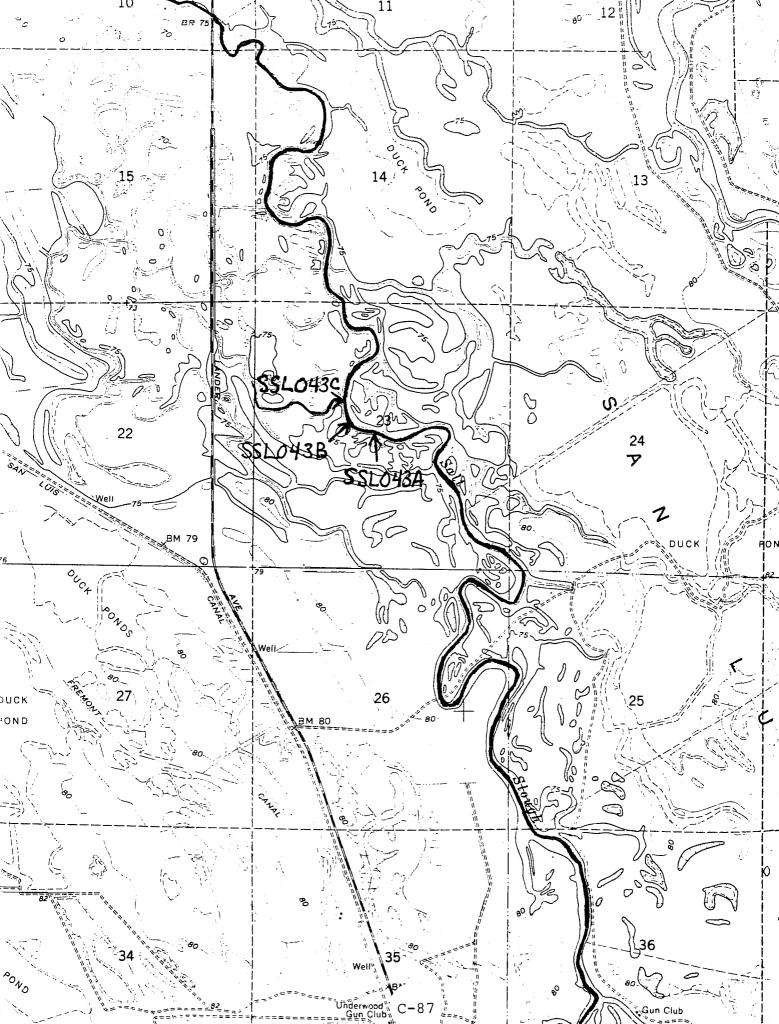
Site #	Slough <u>Mileage</u>	Site Description
SSL043A	12.45W	Large channel entering the Slough from the southwest.
SSL043B	12.59W	Large channel entering the Slough from the west, 0.14 miles north of SSL043A.
SSL043C	12.67W	Large channel entering the Slough from the west, 0.22 miles north of SSLO43A.

Comments on factors affecting water quality and quantity at the site: At times of high flow in Salt Slough, water flows out of Salt Slough through these channels. During periods of high ground water, water probably flows from these channels to the Slough.

Discharge Ownership and Operation: Anna Freitas

1443 Tulare Street

Newman, CA



SITE ID #SSL044

Site Name:

Slough Mileage: 13.41W

Site description, location, and access: From Los Banos take Mercy Springs Road (Lander Avenue) north for approximately 13 miles to where Salt Slough undercrosses the road. From here, walk southeast, along the south bank, for approximately 0.9 miles to where a portable lift pump lifts water from the west bank of the Slough.

Township/Range/Section: SE 1/4, SE 1/4, SW 1/4, Sec. 14, T.8S, R.10E, MDB&M

Latitude/Longitude: Lat: 37° 13' 57" N

Long: 120° 50' 35" W

County: Merced

USGS Quad Map: San Luis Ranch

Type of diversion and use of the water: At this site a portable lift pump may lift water from the Slough into a naturally occurring channel. The water is probably used for stock watering. The pump appears to have remained in this location for quite some time.

Meter Number: N/A

Water Right Permit Number: No permit has been applied for.

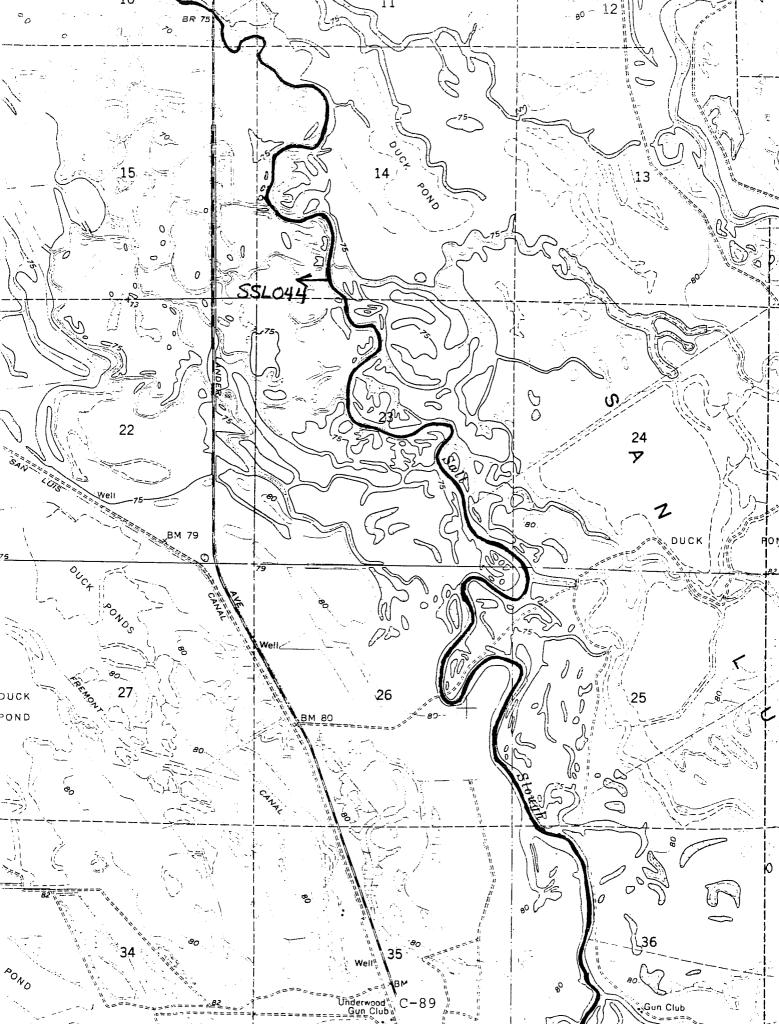
Diversion Ownership and Operation: Anna Freitas

1443 Tulare Street

Newman, CA

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with

respect to other canals, roads, districts boundaries or other



SITE ID #SSL045

Site Name:

Slough Mileage: 13.97W

Site description, location, and access: From Los Banos take Mercy Springs Road (Lander Avenue) north for approximately 13 miles to where Salt Slough undercrosses the road. From here walk southeast, along the southern bank, for 0.33 miles to where a channel enters the Slough from the west bank.

Township/Range/Section: SW 1/4, NW 1/4, SW 1/4, Sec. 14, T.8S, R.10E, MDB&M

Latitude/Longitude: Lat: 37° 14' 12" N

Long: 120° 51' 00" W

County: Merced

USGS Quad Map: San Luis Ranch

WATER SOURCE

Type and source of water being discharged (description): This is a naturally occurring channel which may act as a diversion from, or discharge to, Salt Slough, depending on the flow in Salt Slough and surrounding ground water levels.

Comments on factors affecting water quality and quantity at the site: At times of high flow in Salt Slough, water will flow out of Salt Slough at this point. At times of high ground water, water will probably flow into the Slough from this channel.

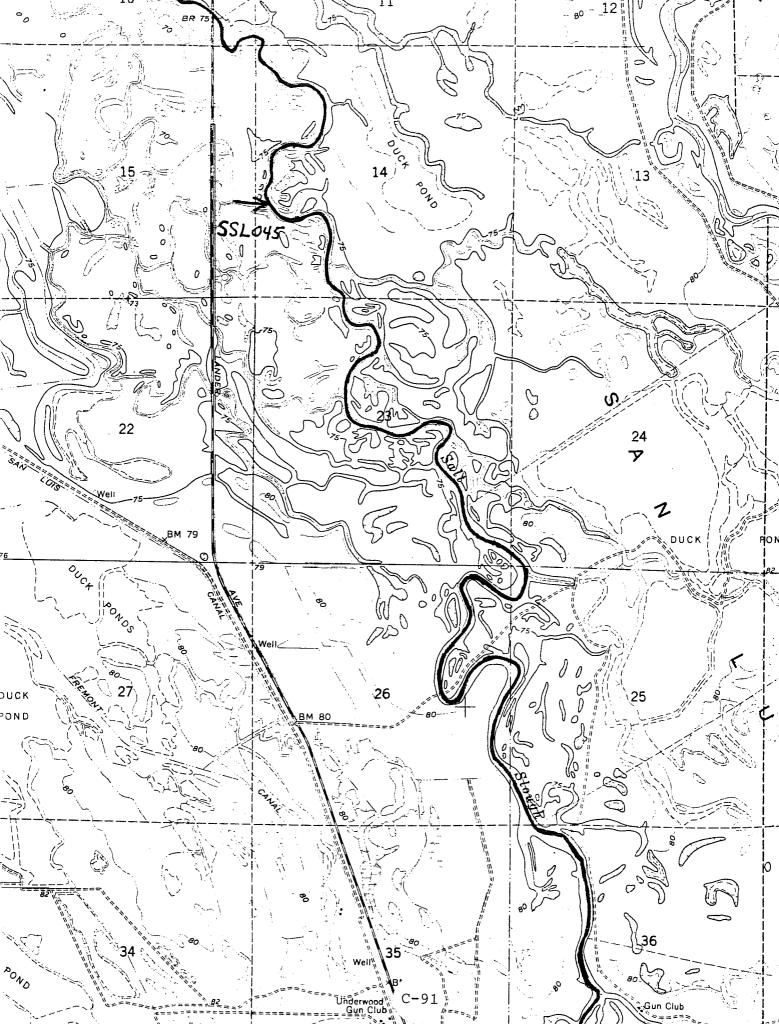
Discharge Ownership and Operation: Anna Freitas

1443 Tulare Street

Newman, CA

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with

respect to other canals, roads, districts boundaries or other



SITE ID #SSL046

Site Name:

Slough Mileage: 14.05E

Site description, location, and access: From Los Banos take Mercy Springs Road (Lander Avenue) north for approximately 13 miles to where Salt Slough undercrosses the road. From here walk southeast, along the southern bank, to where a large channel enters the Slough. This is the discharge site.

Township/Range/Section: SW 1/4, SW 1/4, SW 1/4, Sec. 11, T.8S, R.10E, MDB&M

Latitude/Longitude: Lat: 37° 14′ 43″ N

Long: 120° 51' 00" W

County: Merced

USGS Quad Map: San Luis Ranch

WATER SOURCE

Type and source of water being discharged (description): This channel drains a duck pond just to the east of Salt Slough.

Comments on factors affecting water quality and quantity at the site: At times of high flow in Salt Slough, water will flow out of Salt Slough at this point. At times of high ground water, water will probably flow into the Slough from this channel.

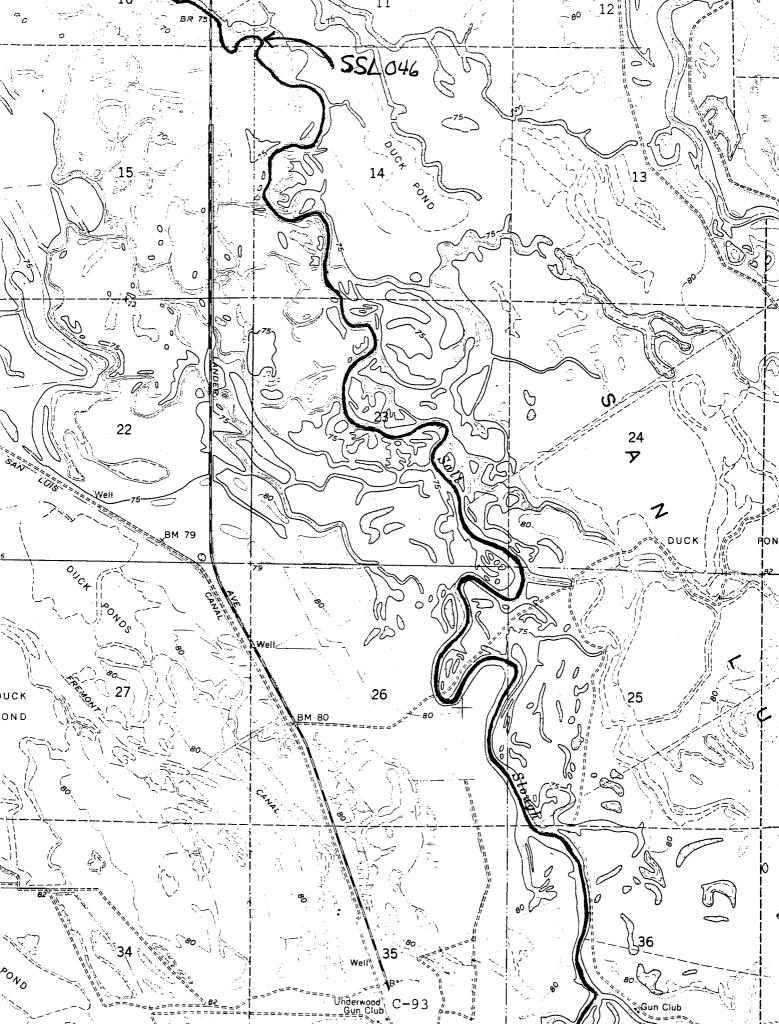
Discharge Ownership and Operation: Gallo Cattle Company

10561 W. Hwy 140 Atwater. CA

Alwater, CA

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with

respect to other canals, roads, districts boundaries or other



SITE ID #SSL047

Site Name:

Slough Mileage: 14.47S

Site description, location, and access: From Los Banos take Mercy Springs Road (Lander Avenue) north for approximately 13 miles to where Salt Slough undercrosses the road. From here walk west, along the southern bank, for 0.17 miles to where a channel enters the Slough from south.

Township/Range/Section: NW 1/4, SE 1/4, SE 1/4, Sec. 10, T.8S, R.10E, MDB&M

Latitude/Longitude: Lat: 37° 14' 55" N

Long: 120° 51' 18" W

County: Merced USGS Quad Map: San Luis Ranch

WATER SOURCE

Type and source of water being discharged (description): This is a naturally occurring channel which may act as a diversion from, or discharge to, Salt Slough, depending surrounding ground water levels and the flow in Salt Slough.

Comments on factors affecting water quality and quantity at the site: At times of high flow in Salt Slough, water will flow out of Salt Slough at this point. At times of high ground water, water will flow from the channel into the Slough.

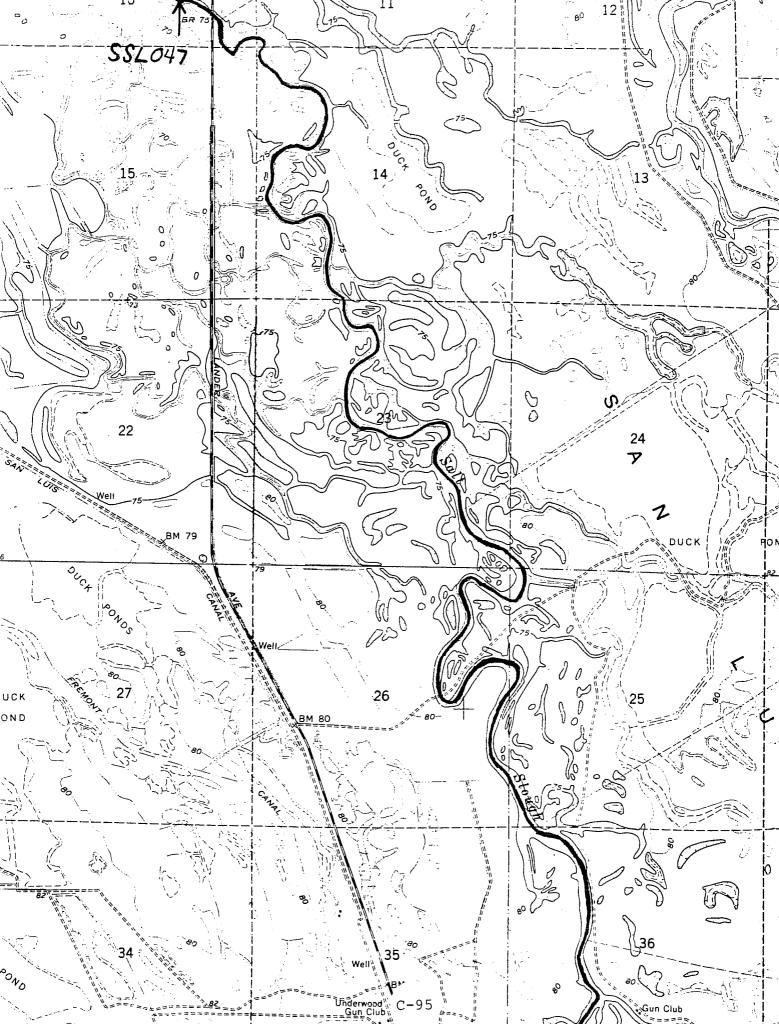
Discharge Ownership and Operation: Anna Freitas

1443 Tulare Street

Newman, CA

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with

respect to other canals, roads, districts boundaries or other



SITE ID #SSL048

Site Name:

Slough Mileage: 14.62N

Site description, location, and access: From Los Banos take Mercy Springs Road (Lander Avenue) north for approximately 13 miles to where Salt Slough undercrosses the road. From here walk west, along the northern bank of the Slough for 0.32 miles to where a large channel enters the Slough.

Township/Range/Section: SW 1/4, NW 1/4, SE 1/4, Sec. 10, T.8S, R.10E, MDB&M

Latitude/Longitude: Lat: 37° 15' 00" N

Long: 120° 51' 23" W

County: Merced

USGS Quad Map: San Luis Ranch

WATER SOURCE

Type and source of water being discharged (description): This naturally occurring channel drains an area to the northeast of its discharge site to Salt Slough.

Comments on factors affecting water quality and quantity at the site: This drain probably flows only during periods of high ground water levels in the area.

Discharge Ownership and Operation: Lloyds Bank, California

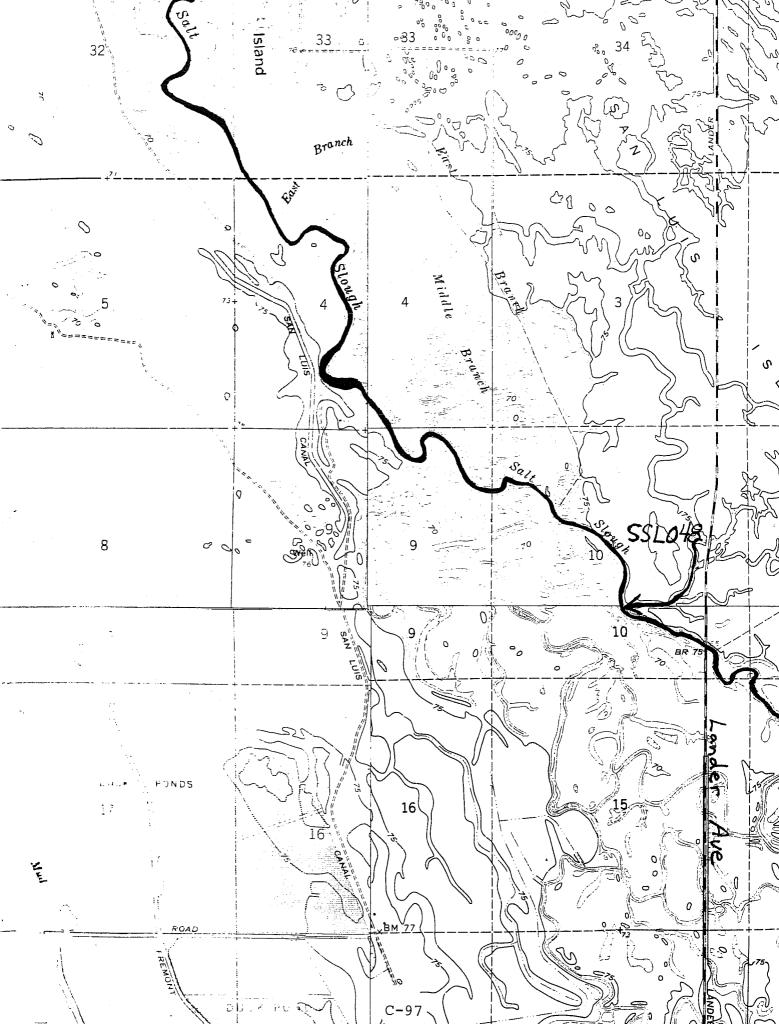
c/o Trust Department

444 Market Street, 22nd Floor

San Francisco, CA

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with

respect to other canals, roads, districts boundaries or other



SITE ID #SSL049

Site Name:

Slough Mileage: 14.65S

Site description, location, and access: From Los Banos take Mercy Springs Road (Lander Avenue) north for approximately 13 miles to where Salt Slough undercrosses the road. From here walk west, along the southern bank, for 0.37 miles to where a channel enters the Slough from the south.

Township/Range/Section: SW 1/4, NW 1/4, SE 1/4, Sec. 10, T.8S, R.10E, MDB&M

Latitude/Longitude: Lat: 37° 15' 00" N

Long: 120° 51' 25" W

County: Merced

USGS Quad Map: Stevinson

WATER SOURCE

Type and source of water being discharged (description): This is a naturally occurring channel which may act as a diversion from, or discharge to, Salt Slough, depending on surrounding ground water levels and the flow in Salt Slough.

Comments on factors affecting water quality and quantity at the site: At times of high flow in Salt Slough, water will flow out of Salt Slough at this point. At times of high ground water, water will flow from the channel into the Slough.

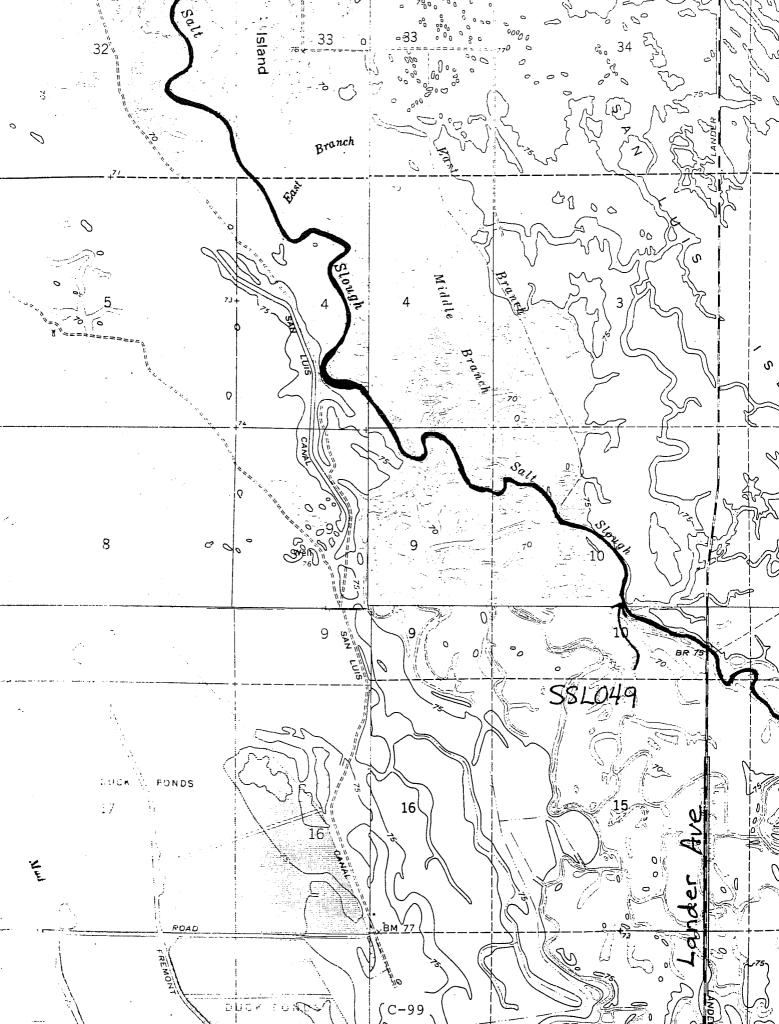
Discharge Ownership and Operation: Anna Freitas

1443 Tulare Street

Newman, CA

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with

respect to other canals, roads, districts boundaries or other



SITE ID #SSL050

Site Name: East Branch of Salt Slough Slough Mileage: 15.44N

Diversion from Salt Slough

Site description, location, and access: From Los Banos take Mercy Springs Road (Lander Avenue) north for approximately 13 miles to where Salt Slough undercrosses the road. From here, walk west, along the northern bank, for 1.14 miles to where a channel diverts water from the northern bank of Salt Slough. This is the East Branch.

Township/Range/Section: NE 1/4, SW 1/4, NW 1/4, Sec. 10, T.8S, R.10E, MDB&M

Latitude/Longitude: Lat: 37° 15' 28" N

Long: 120° 51' 45" W

County: Merced USGS Quad Map: Stevinson

Type of diversion and use of the water: This is a naturally occurring channel which diverts water from Salt Slough during periods of high flow. The flow reenters the Slough approximately 2.8 miles downstream at SSL055.

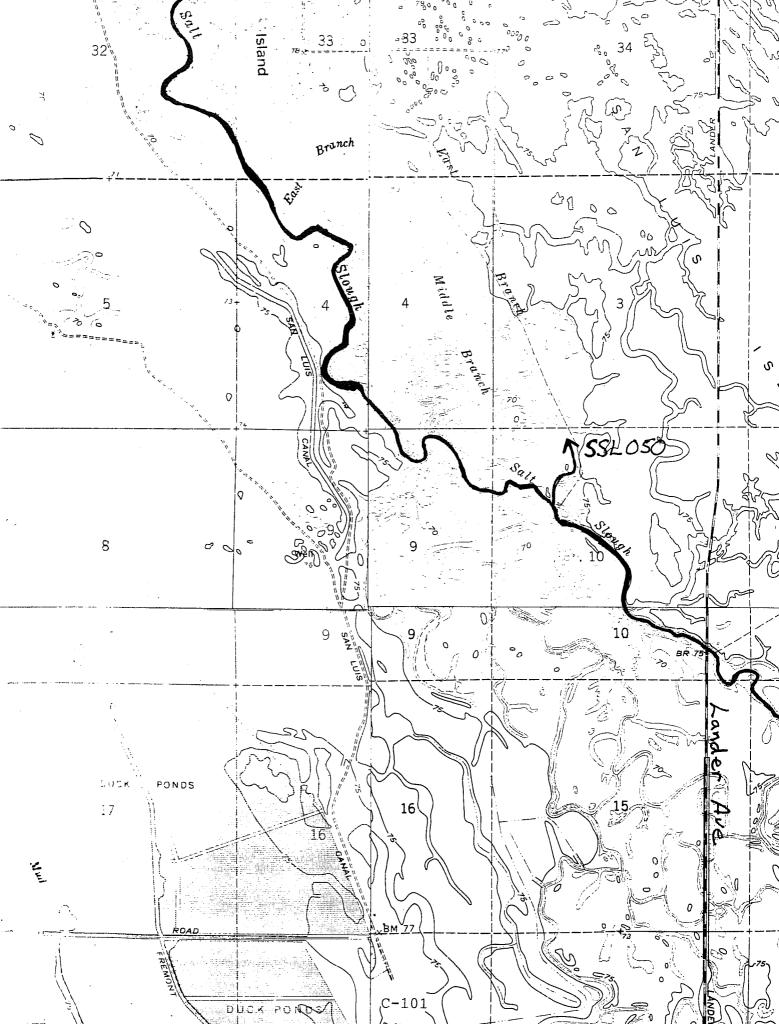
Diversion Ownership and Operation: Lloyds Bank, California c/o Trust Department

444 Market Street, 22nd Floor

San Francisco, CA

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with

respect to other canals, roads, districts boundaries or other



SITE ID #SSL051

Site Name: Middle Branch of Salt Slough Slough Mileage: 15.91N

Diversion from Salt Slough

Site description, location, and access: From Los Banos take Mercy Springs Road (Lander Avenue) north for approximately 13 miles to where Salt Slough undercrosses the road. From here, walk west, along the northern bank, for 1.14 miles to where a channel enters the north bank of the Slough. This is the East Branch of Salt Slough. Cross over this channel and continue west for another 0.47 miles to where a channel diverts water from the north bank of Salt Slough. This is the Middle Branch of Salt Slough.

Township/Range/Section: SW 1/4, NW 1/4, NW 1/4, Sec. 9, T.8S, R.10E, MDB&M

Latitude/Longitude: Lat: 37° 15' 33" N

Long: 120° 51' 54" W

County: Merced USGS Quad Map: Stevinson

Type of diversion and use of the water: This is a naturally occurring channel which diverts water from Salt Slough during periods of high flow. The flow reenters the Slough approximately 1.5 miles downstream at SSL054.

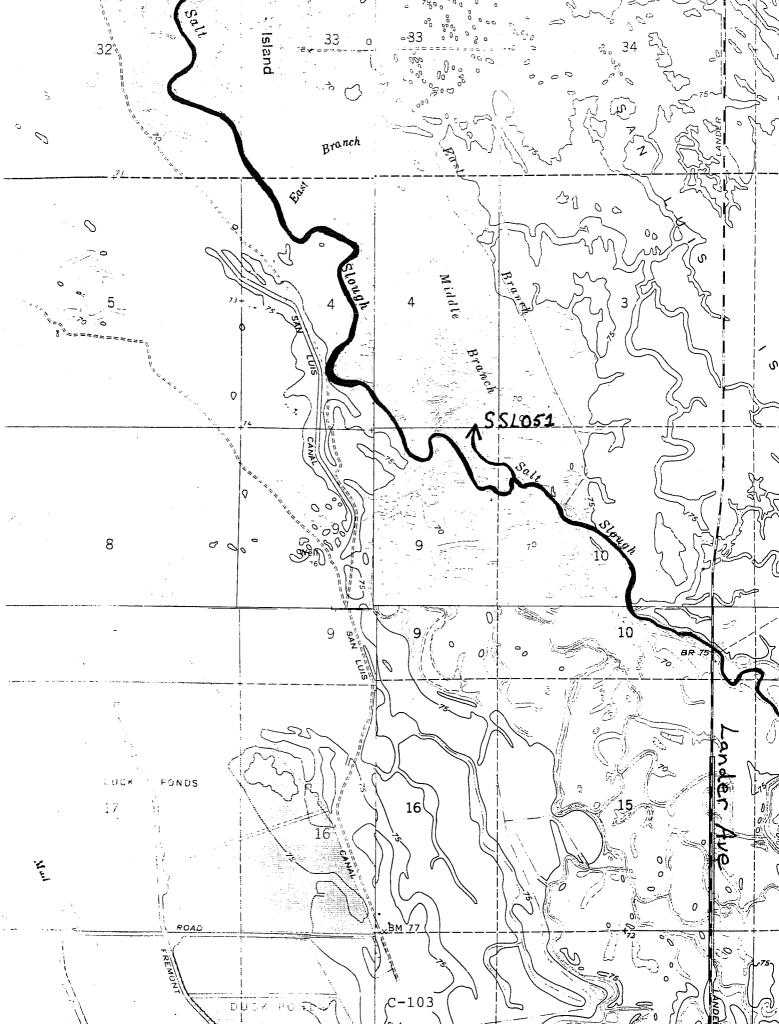
Diversion Ownership and Operation: Anna Freitas

1443 Tulare Street

Newman, CA

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with

respect to other canals, roads, districts boundaries or other



SITE ID #SSL052

Site Name:

Slough Mileage: 16.04S

Site description, location, and access: From Los Banos take Mercy Springs Road (Lander Avenue) north for approximately 13 miles to where Salt Slough undercrosses the road. From here walk west, along the southern bank, for 1.74 miles to where a large channel enters the Slough from the south. This is the discharge site.

Township/Range/Section: NE 1/4, SE 1/4, NE 1/4, Sec. 9, T.8S, R.10E, MDB&M

Latitude/Longitude: Lat: 37° 15' 23" N

Long: 120° 51' 58" W

County: Merced

USGS Quad Map: Stevinson

WATER SOURCE

Type and source of water being discharged (description): This drain drains a large area south of Salt Slough. A major source for this flow can come from a diversion of the San Luis Canal.

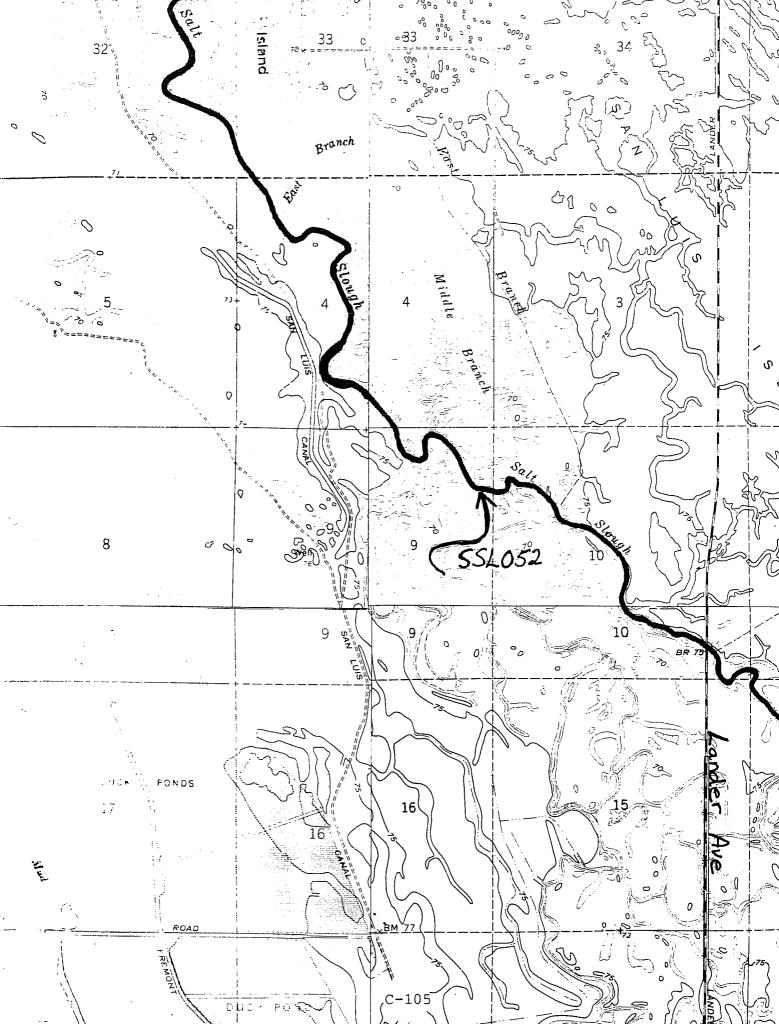
Discharge Ownership and Operation: Anna Freitas

1443 Tulare Street

Newman, CA

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with

respect to other canals, roads, districts boundaries or other



SITE ID #SSL053

Site Name:

Slough Mileage: 16.50S

Site description, location, and access: From Los Banos take Mercy Springs Road (Lander Avenue) north for approximately 13 miles to where Salt Slough undercrosses the road. From here walk west, along the southern bank, for 2.2 miles to where a large channel enters the Slough. This is the discharge site.

Township/Range/Section: SE 1/4, NW 1/4, NE 1/4, Sec. 9, T.8S, R.10E, MDB&M

Latitude/Longitude: Lat: 37° 15' 30" N

Long: 120° 52' 19" W

County: Merced

USGS Quad Map: Stevinson

WATER SOURCE

Type and source of water being discharged (description): This channel drains a number of duck ponds just south of Salt Slough. A major source for this drain may be the San Luis Canal by way of diversion through the ponds.

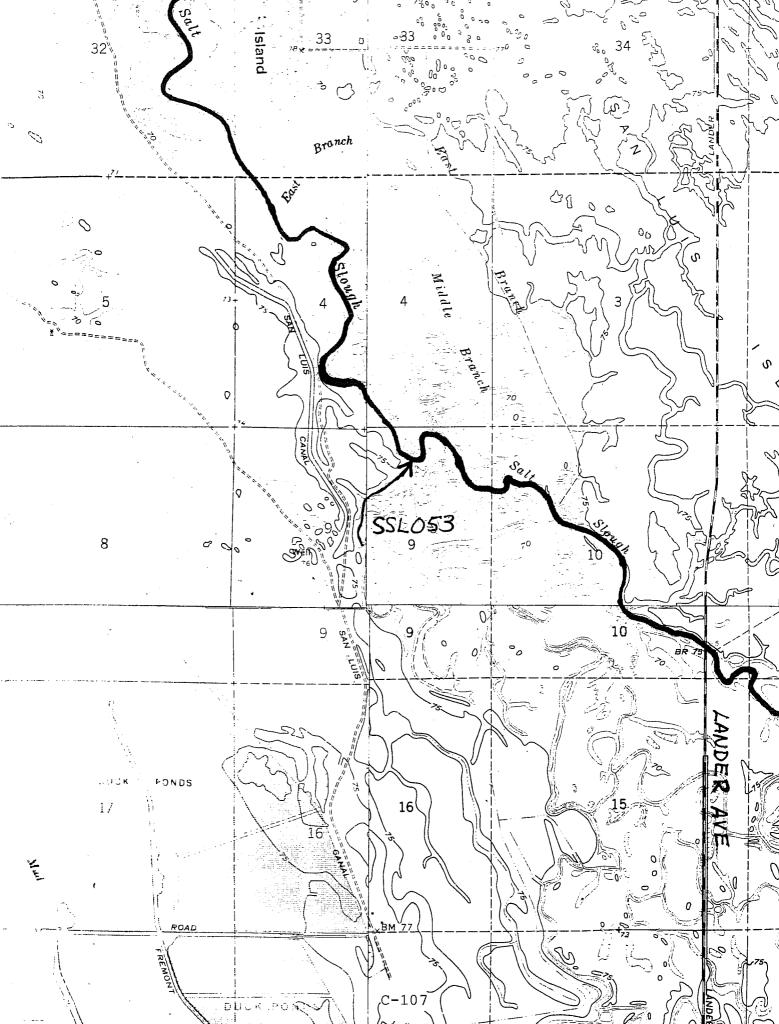
Discharge Ownership and Operation: Anna Freitas

1443 Tulare Street

Newman, CA

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with

respect to other canals, roads, districts boundaries or other



SITE ID #SSL054

Site Name: Middle Branch of Salt Slough

Slough Mileage: 17.45E

Discharge to Salt Slough

Site description, location, and access: From Los Banos take Mercy Springs Road (Lander Avenue) north for approximately 13 miles to where Salt Slough undercrosses the road. From here walk west, along the northern bank, for 3.15 miles to where a large channel enters the Slough from the east. This is the Middle Branch of Salt Slough.

Township/Range/Section: SE 1/4, NE 1/4, SW 1/4, Sec. 4, T.8S, R.10E, MDB&M

Latitude/Longitude: Lat: 37° 15' 55" N

Long: 120° 52' 36" W

County: Merced USGS Quad Map: Gustine

WATER SOURCE

Type and source of water being discharged (description): The water in this channel is diverted naturally from Salt Slough, 1.5 miles upstream from this discharge site, during periods of high flow in Salt Slough. It then reenters the Slough at this point.

Comments on factors affecting water quality and quantity at the site: There is very little opportunity for any drainage water to enter the Middle Branch of Salt Slough between its point of departure from Salt Slough to its reentry. Therefore the quality water at this point probably has not changed significantly since its diversion.

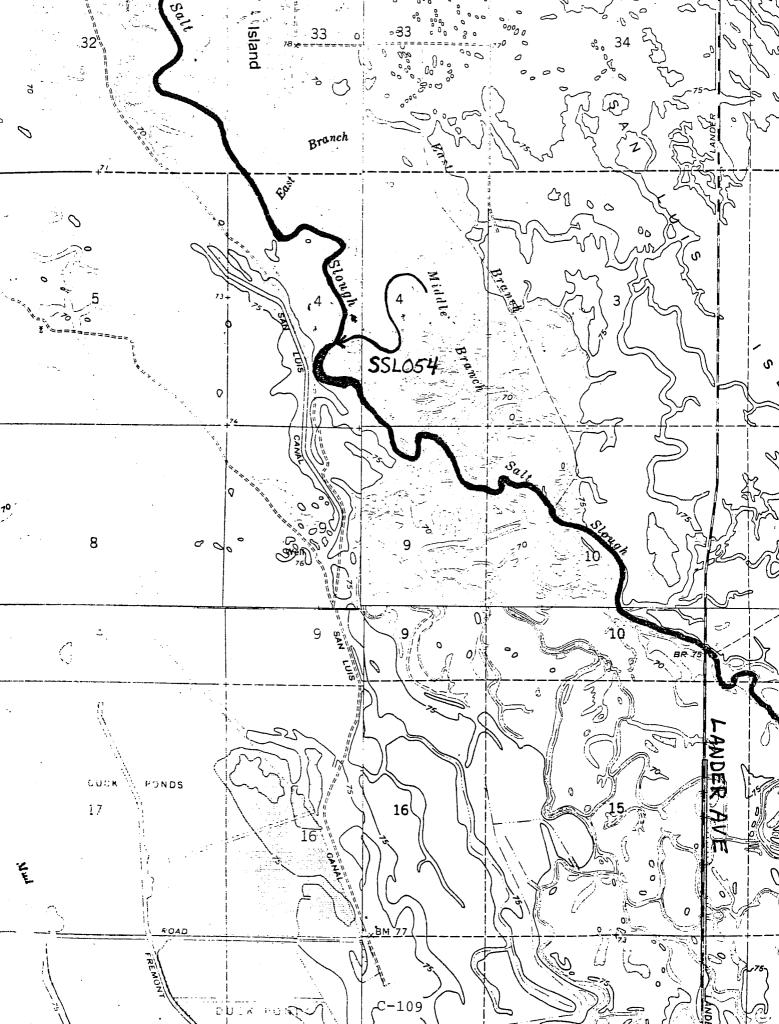
Discharge Ownership and Operation: Anna Freitas

1443 Tulare Street

Newman, CA

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with

respect to other canals, roads, districts boundaries or other



SITE ID #SSL055

Site Name: East Branch of Salt Slough

Discharge to Salt Slough

Slough Mileage: 18.25E

Site description, location, and access: From Los Banos take Mercy Springs Road (Lander Avenue) north for approximately 13 miles to where Salt Slough undercrosses the road. From here walk west, along the northern bank, for 1.14 miles to where a channel diverts water from the northern bank of Salt Slough. This is the East Branch. Follow the East Branch northwest for approximately 3 miles to where it reenters the Slough. This is the discharge site.

Township/Range/Section: NW 1/4, NW 1/4, NW 1/4, Sec. 4, T.8S, R.10E, MDB&M

Latitude/Longitude: Lat: 37° 16′ 23" N

Long: 120° 52' 55" W

County: Merced

USGS Quad Map: Gustine

WATER SOURCE

Type and source of water being discharged (description): Water discharged at this point comes from its upstream diversion of Salt Slough, during high flow periods, and a fairly large area to the east of the East Branch of Salt Slough.

Comments on factors affecting water quality and quantity at the site: Between its point of diversion and reentry, the East Branch may receive flow from a fairly large area to the east.

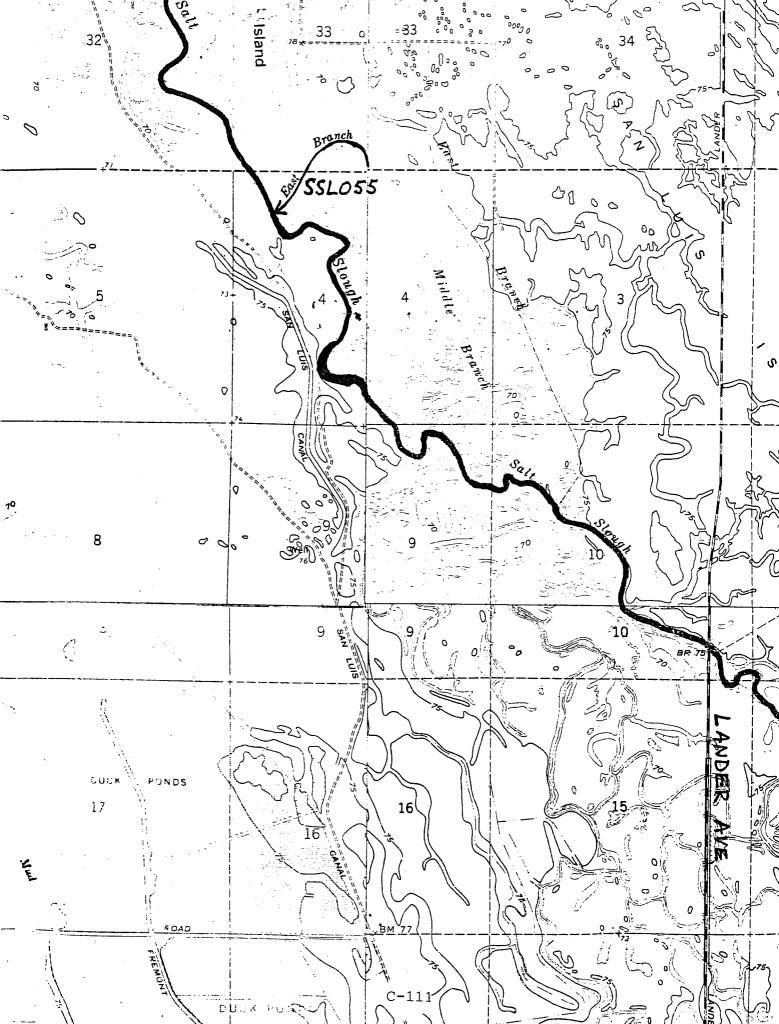
Discharge Ownership and Operation: Anna Freitas

1443 Tulare Street

Newman, CA

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with

respect to other canals, roads, districts boundaries or other



SITE ID #SSL056

Site Name:

Slough Mileage: 19.68W

Site description, location, and access: From Gustine, take Hunt Road south to Gun Club Road and turn east. Proceed east on Gun Club Road until it dead ends at the Freitas Ranch. From here turn north along the east bank of the San Luis Canal (not the San Luis Drain). Head north along this road for 1.75 miles to a fork in the road. At this point, take the right fork and proceed north for approximately 3.5 miles to where a channel undercrosses the road. Follow this channel east to Salt Slough. This is the discharge site.

Township/Range/Section: SE 1/4, NW 1/4, NE 1/4, Sec. 32, T.7S, R.10E, MDB&M

Latitude/Longitude: Lat: 37° 17' 16" N

Long: 120° 53' 20" W

County: Merced

USGS Quad Map: Gustine

WATER SOURCE

Type and source of water being discharged (description): This is a naturally occurring channel which may act as a diversion from, or discharge to, Salt Slough, depending on surrounding ground water levels and the flow in Salt Slough.

Comments on factors affecting water quality and quantity at the site: At times of high flow in Salt Slough, water will flow out of Salt Slough at this point. At times of high ground water, water will probably flow from this channel to Salt Slough.

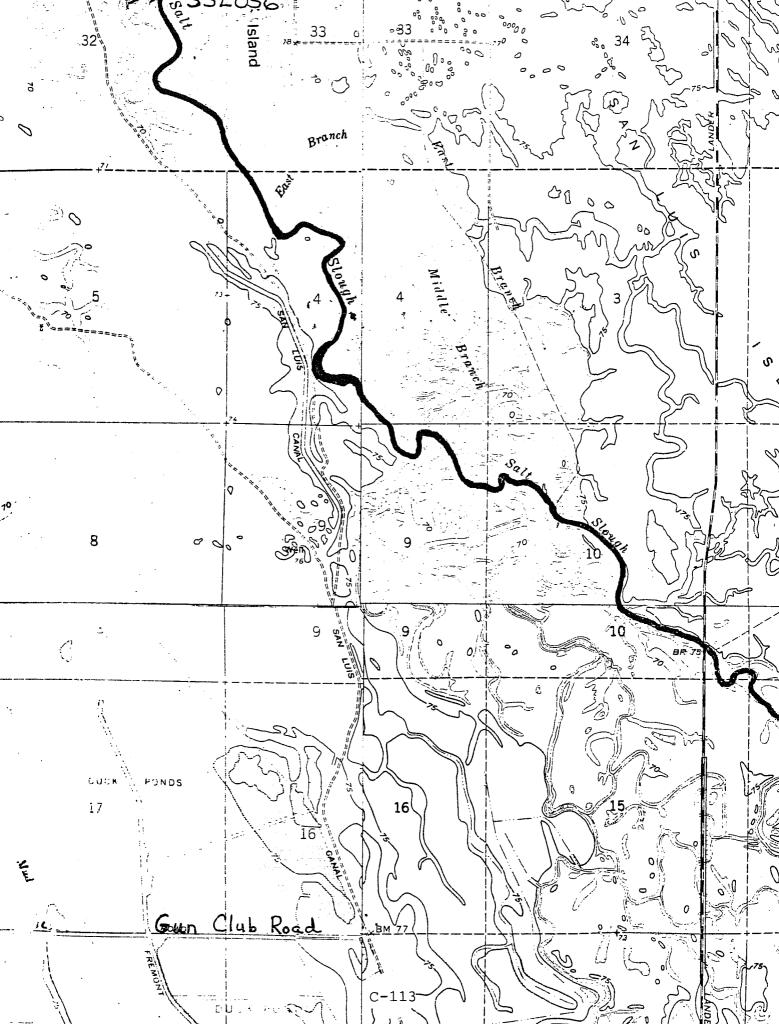
Discharge Ownership and Operation: Anna Freitas

1443 Tulare Street

Newman, CA

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with

respect to other canals, roads, districts boundaries or other



SITE ID #SSL057

Site Name:

Slough Mileage: 20.27E

Site description, location, and access: From Los Banos take Mercy Springs Road (Lander Avenue) north for approximately 13 miles to where Salt Slough undercrosses the road. From here, walk west, along the northern bank, for 1.14 miles to where a channel diverts water from the northern bank of Salt Slough. This is the East Branch. Follow the East Branch for approximately 3 miles to where it reenters the Slough. From here, proceed north for 2 miles to where a channel enters the Slough from the east bank. This is the discharge site.

Latitude/Longitude: Lat: 37° 17' 29" N

Long: 120° 53' 20" W

County: Merced

USGS Quad Map: Gustine

WATER SOURCE

Type and source of water being discharged (description): This is a naturally occurring channel which may act as a diversion from, or discharge to, Salt Slough, depending on surrounding ground water levels and the flow in Salt Slough.

Comments on factors affecting water quality and quantity at the site: At times of high flow in Salt Slough, water will flow out of Salt Slough at this point. At times of high ground water, water will probably flow from this channel to Salt Slough.

Discharge Ownership and Operation: Anna Freitas

1443 Tulare Street

Newman, CA

SKETCH/MAP: Attach or refer to a map or sketch that shows site location with

respect to other canals, roads, districts boundaries or other

